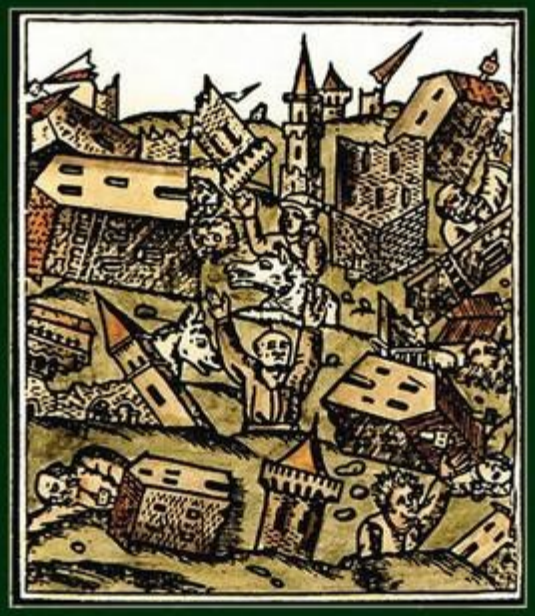
Natural Disasters in the Ottoman Empire

PLAGUE, FAMINE, AND OTHER MISFORTUNES



YARON AYALON

VISIT...

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This book explores the history of natural disasters in the Ottoman Empire and the responses to them on the state, communal, and individual levels. Yaron Ayalon argues that religious boundaries between Muslims and non-Muslims were far less significant in Ottoman society than commonly believed. Furthermore, the emphasis on Islamic principles and the presence of Islamic symbols in the public domain were measures the state took to enhance its reputation and political capital – occasional discrimination against non-Muslims was only a by-product of these measures. This study sheds new light on flight and behavioral patterns in response to impending disasters by combining historical evidence with studies in social psychology and sociology. Employing an approach that mixes environmental and social history with the psychology of disasters, this work asserts that the handling of such disasters was crucial to both the rise and the fall of the Ottoman Empire.

YARON AYALON is an Assistant Professor of History at Ball State University. He previously taught at Emory University and the University of Oklahoma. He has published articles on Middle Eastern, Ottoman, and Sephardic history, and is an editor for the *Encyclopedia of Jews in the Islamic World*.

To Keren

Natural Disasters in the Ottoman Empire

Plague, Famine, and Other Misfortunes

Yaron Ayalon
Ball State University

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Preface

One night, when I was twelve or thirteen years old, I went into my father's study. There was always something intimidating about that room, with books aligned along the walls from floor to ceiling and my father's old, dark, and heavy desk and chair taking up much of the space. That night, as I walked in, Bernard Lewis was sitting on that wood chair, holding his right shoe with his left hand. The shoe's sole had suddenly fallen off, and my father was assisting Lewis in gluing it back. The scene was quite amusing, but not so much for the presence of Lewis himself or the rare informal setting in which I encountered him that night. Growing up in a house of a Middle East historian who had studied at Princeton, the sight of famous people (famous in my father's profession, that is) was not unusual. As a toddler, so I was told, I sat on S. D. Goitein's lap. As a teenager, I had dinner with Elie Kedourie shortly before he passed away. And I got to meet and converse with Lewis every so often.

It was not before my last year in high school, however, that I started to show interest in all those books my father had. When I did, I realized I knew a few of the authors who had written the books we had at home. Later, many of them would become my teachers and mentors. The first book I read was Lewis's *The Emergence of Modern Turkey*, which I found to be quite fascinating. To the mind of a clueless teenager, Lewis's explanation of the decline and fall of the Ottoman Empire made perfect sense. It also whetted my appetite for Middle East history, so as a senior in high school I sat in on an Intro to the Middle East class at Tel Aviv University. The modern era in the Middle East, so the professor explained to a room of two hundred–plus students, began with Bonaparte's conquest of Egypt in 1798. The narrative of the course, as well as that of a similar class I took as an undergraduate several years later, was one that equated modernity with Europe, decline with the end of Süleyman the Magnificent's reign in the sixteenth century, and the seventeenth and eighteenth centuries with stagnation. Twenty years have passed since I first read Lewis's book. Historiography of the Middle East, and the Ottoman Empire in particular, has gone a long way in the interim, and our understanding of the region's history has evolved quite a bit. This book reflects much of that historiographical transformation, and hence also my personal journey to become a historian that had started with my reading of

Lewis's *Emergence* in the mid-1990s.

This book tells a story that took place over vast lands and several centuries. Very appropriately, it took traveling to distant lands – physically and emotionally – and more than a decade to write it. I first envisioned this study while participating in Amy Singer's graduate seminar on poverty and charity at Tel Aviv University in 2003. I developed its main themes during my time as a Ph.D. candidate at Princeton from 2004 to 2009 and a student at Boğaziçi University in Istanbul in the summers of 2005 and 2006. Work on this project took me to archives and libraries in Istanbul, Marseille, London, Jerusalem, and New York. But when I was done writing my doctoral dissertation, I was not happy with it. So the journey to create this book continued, not only with further research in the archives, but also in Norman, Oklahoma; Atlanta; and Muncie, Indiana. The final product, the one you are about to read, therefore, hardly resembles my original dissertation.

Many people have helped and supported me with this project along the way. Much of the work on this book was done during my years at Princeton. My adviser, Mark Cohen, knew me before I knew him. Always helpful and generous with his time and resources, he provided invaluable feedback and advice. Michael Cook probably spent as much time reading and commenting on early versions of my chapters as I took to write them. I am truly indebted for his nearly endless commitment to helping me see this project through, whether by providing research advice or personal encouragement when the prospects of finding employment in an ever-competitive job market appeared to be slim. Also at Princeton, Şükrü Hanioğlu was responsible for introducing me to the world of Ottoman Turkish manuscripts and for helping me decipher some of the most challenging and illegible documents human eyes have ever seen. Thanks to his ability to read Ottoman handwritten texts as one would read a newspaper, I managed to overcome many technical obstacles throughout this study. William Jordan provided useful feedback and offered the greatly needed perspective of someone who is not a Middle East historian. Heath Lowry also read parts of this work in its early forms. Attending his seminar in 2007 opened my eyes to the world of Muslim-Christian interactions during the early Ottoman period and has shaped many of the questions for this book. Erika Gilson, my Turkish teacher, instilled within me a passion for Turkey and the Turkish language, and helped make possible the two summers I spent at Boğaziçi University. Anthony Grafton, Muhammad Qasim Zaman, Michael Reynolds, and Abraham Udovitch also deserve thanks for their words of wisdom and encouragement.

Others have contributed to this project by reading sections, discussing ideas, writing on my behalf, or just offering advice. They include Amy Singer, who read the parts of this book about charity and provided honest and much-needed criticism, and Alan Mikhail of Yale University, who has been especially helpful and generous with his comments and suggestions for one of the chapters and the book overall. Michael Winter and Israel Gershoni of Tel Aviv University, Yaron Har'el of Bar Ilan University, and Yaron Ben-Naeh of the Hebrew University of Jerusalem also helped along the way.

Norman Stillman deserves to be mentioned twice: once for helping me get my first job at the University of Oklahoma in the midst of the 2008–9 financial crisis when all other positions evaporated, and for being a close mentor and friend ever since; and the second time, for asking me to join the editorial board of the *Encyclopedia of Jews in the Islamic World*, my work for which has greatly informed my approach to religion and religious boundaries presented here. Mark Frazier, my department chair in Oklahoma (now at the New School), was always there to give professional advice even though we worked in different fields. And my other colleagues and students in Oklahoma helped make my time there enjoyable and productive.

Ken Stein brought me to Emory University, where I spent two years, and ensured I had ample time to devote to writing this book, financial support to travel to conferences, and wonderful students to teach. I have learned a great deal from him professionally and personally, and am forever indebted to him for his support and mentorship. Colleagues in the History and Middle East and South Asian Departments made working at Emory a rewarding professional and social experience. They include Vince and Rkia Cornell, Benny Hari, Jeff Lesser, Roxani Margariti, Gordon Newby, and Ofra Yeglin. My students at Emory have inspired me in numerous ways. I owe special thanks to Samantha Grayman, who worked as my undergraduate research assistant and diligently sorted through numerous primary documents in English and French. Finally, at Ball State I have found a welcoming atmosphere in a relaxing setting that allowed me to complete this book. In particular I should mention Kevin Smith and Abel Alves, who have been extremely patient as they guided me through my first year in unfamiliar institutional waters.

This project involved working in several archives and libraries: the Prime Minister's Archives and the Süleymaniye Library in Istanbul, the Archives of the Chamber of Commerce in Marseille, the National Archives and the British Library in London, the National Library in Jerusalem, the library of the Jewish Theological Seminary in New York, and the Rare Books and Special Collections department at the

Princeton University Library. In all of these places, I found knowledgeable and eager-to-help staff.

During this long journey I was fortunate to have the support of friends who (at times inadvertently) helped with this project, and who made life a little easier, if not enjoyable. They include Alan Verskin, Mehmet Darakçioğlu, Tuna Artun, Jack Tannous, Uriel Simonsohn, Bella Tendler, Kathi Ivanyi, Lev Weitz, Joel Blecher, Ariel Ahram, Joshua Landis, Deniz Kilincoğlu, who read the last chapter of the book and provided priceless insights, and his wife, Sevil, and Cara and Aaron Rock-Singer, who spent many hours in the National Archives in London photographing files when I could not travel there myself.

At Cambridge University Press, I would like to thank Will Hammell, who has believed in this project since I first presented it to him more than two years ago, and who was very efficient in getting the manuscript through the vetting process. Sarika Narula and Kate Gavino have handled all the aspects of seeing the manuscript to production and were always available to answer my many questions. I'm also grateful for the extensive comments the two anonymous readers provided. Their diligent attention to details and wonderful ideas have no doubt made this a better book.

Finally, this book could not have been written without the constant encouragement and patience of my family, near and far. From Israel, my parents, Ami and Yael, and my brother, Gil, were always available when I needed them; my father spent much time and energy offering expert advice, and my brother provided his design expertise for some of the technical aspects of this work. My wife, Keren, has endured more than anyone should have for the realization of such a modest scholarly accomplishment. Giving up many opportunities so I could pursue an academic career, she changed jobs numerous times as we moved back and forth across the country, while putting up with a husband who at times preferred the company of books to that of people. The quest to complete this book and secure an academic position has taken a toll on my son, Yuval, who was born in Oklahoma, and by the time he was three had already lived in four homes and gone through four preschools. Omri, the latter addition to our family, was born in Indiana when this project was near completion, but he, too, got to spend less time with his father than he should have. All in all, Keren and my children are the true heroes behind this work.

Abbreviations, Transliteration, and Dates

I have used the following abbreviations throughout the book:

ACCM	Archives de la Chambre de Commerce et d'Industrie Marseille-Provence
AHR	*American Historical Review*
BL	British Library, London
BOA	Başbakanlık Osmanlı Arşivleri, Istanbul
EI²	*Encyclopedia of Islam*, 2nd edition
EJIW	*Encyclopedia of Jews in the Islamic World*
IJMES	*International Journal of Middle East Studies*
JESHO	*Journal of the Social and Economic History of the Orient*
NA	National Archives, London
SL	Süleymaniye Library, Istanbul
TDVİA	Türk Diyanet Vakfı İslam Ansiklopedisi

Words in Arabic are transliterated according to the system used by the *International Journal of Middle East Studies* with some modifications: I use diacritical marks and apostrophes to denote *hamza, aliph*, or *'ayin*, but not vowel signs. Words in Ottoman Turkish are transliterated according to Ferit Devellioğlu's "Ottoman-Turkish Lexicon" (*Osmanlıca-Türkçe ansiklopedik lugat*). For words not appearing in Devellioğlu's dictionary, Redhouse's Ottoman–Modern Turkish–English dictionary (*Türkçe-Osmanlıca-İngilizce sözlüğü*) is used. Words that occur in the sources in Arabic and Ottoman Turkish are initially transliterated in both languages, with the first word denoting the Arabic and the second the Ottoman form (e.g., *jizya* or *cizye*). Thereafter, terms appear in either the Arabic or Turkish, depending on the context and the language of the document in which they appear. Words in Hebrew are transliterated to reflect Modern Hebrew pronunciation: ' is used to denote the letter *'ayin*,' a vocal *aleph*; ḥ the

letter ḥ*et*; kh a soft *kaf*; k a *kuf* or *kaf;* ṭ for ṭ*et;* and ṣ for *tsadi*. An h is used for a final *hei*, and double consonants represent a *dagesh* ḥ*azak*. As in Arabic, vowel signs are not used for Hebrew.

People's names have been left in the original form, as they appear in the sources, even if there is an English equivalent (e.g., Yosef and not Josef). Place names have been provided in English when an English equivalent exists (e.g., Aleppo and not Ḥalab or Halep), but when appropriate also in the original language. Technical terms in languages other than English are italicized. Although in many sources used for this book dates appear in the Hijri calendar (based on the lunar year and beginning in 622 CE), I've used the Common Era for dates throughout the main text. Hijri dates appear here and there in the footnotes when such usage is justified.

Map 1. The Ottoman Empire.

Introduction

In the early afternoon hours of Monday, 20 May 2013, a mighty tornado made landfall in Moore, Oklahoma, a southern suburb of Oklahoma City. Traveling northeast at an estimated 210 miles per hour, the tornado passed just a few miles away from the house my wife and I owned in Norman, ripping through sections of Moore we used to drive by, damaging stores we used to shop at, toppling two schools, and killing more than ninety people, twenty of them children. Entire neighborhoods, one police officer explained, were "just wiped clean." One couple, hiding in a shelter, returned to their destroyed home and found the body of a three-year-old girl whom the storm had carried with it lying in the rubble. "My neighborhood is gone," the shocked woman said, "demolished. The street is gone. The next block over, it's in pieces."[1]

The 2013 Oklahoma tornado was a grim reminder of humans' vulnerability to the potent forces of nature. As such, it was another link in a chain of massive disasters occurring in the last decade, such as the 2004 Asian tsunami, Hurricanes Katrina and Rita of 2005, the 2008 Sichuan earthquake, and the one in Tohoku in 2011. These have rekindled interest in natural disasters and their implications among scholars, scientists, and the public. Along with other recent calamities, they spurred a host of academic and other publications that discussed society's preparedness for natural disasters, its responses to them, and procedures for recovery.[2]Social scientists examined individual and collective decision-making under life-threatening conditions. They looked into factors that affect people's resort to protective action, such as racial and ethnic affiliations, financial resources, past experience, and one's personal sense of imminent danger. These events also inspired a probe into the issue of recovery from disasters as a social process. One finding was that while certain communities rebound fast, others take years to recover, or disintegrate altogether. Another was that governments had a major say in the ability of individuals and groups to resume normalcy.[3]

Social scientists have been studying disasters for several decades now, inquiring how and why they occur and seeking ways to reduce their impact. There is another important value in studying disasters: They offer the observer a "natural laboratory" for exploring "aspects

of social structures and processes that are hidden in everyday affairs." Evidence gathered during and after disasters, it has been suggested, provides "rich data for addressing basic questions about social organization – its origins, adaptive capacities, and survival."[4] In assessing human conduct under life-threatening conditions and the role of collective institutions in shaping people's responses to them, social scientists often rely on data from past calamities.[5] Historical experience is a cornerstone of disaster studies, and scientific insights are frequently based on testimonies from the near and far past, in one's own as well as other societies. Engaging in this kind of exploration is, thus, equally justified for current and historical cases.

This book explores responses to natural disasters in the Ottoman Empire (see Map 1) from its outset to its fall, with a special focus on one particular segment of this history, the seventeenth and eighteenth centuries. Natural disasters played an important role in the rise and fall of the empire, as well as in shaping the daily routine of individuals and communities living under Ottoman rule. Reactions to disasters on the state-empire, communal, and individual levels, I argue, indicate that religious boundaries – as distinct from *religious identity* – were less significant in Ottoman society than we used to think. The empire's Islamic identity was important in stirring resistance to external and internal threats, and in rationalizing territorial expansions; but faith in itself was not "the primary organizing principle of ... Ottoman society."[6] Historians have long subscribed to an ambivalent view: on one hand, stressing the import of confessional boundaries in the empire, by pointing to representation and registration of *dhimmi*s (non-Muslims) in the *shar'i* court, to separation of Muslims from non-Muslims in bathhouses, and even to writing, with authors and their readers usually professing the same faith; and, on the other, showing how Muslims and non-Muslims enjoyed similar opportunities in certain areas. These included forming and maintaining business partnerships, being members of guilds, pursuing a wide range of professions, choosing where to live, and consuming wine publicly, seemingly in violation of Islamic law.[7] The findings presented here on responses to natural disasters help us see this intricate scene more sharply. On the whole, they seem to underscore the porousness of the boundaries between Muslims and non-Muslims.

In this study I also maintain that the Ottoman Empire accentuated religious divisions out of political considerations as often as religious principles. The emphasis on Islamic values, the pronounced presence of Islamic symbols in the public domain, and periodic discrimination against non-Muslims were measures the state took to enhance its stature and gain political capital. Normally, Ottoman subjects did not

ask for such divisions nor see a need for them. This popular view was hard to detect in the sea of historical records, which were mostly written by state agents, such as *shar'i* court registers and other Ottoman archival documents. State officials, who authored the greater share of materials we now have for the empire, did assume differences between Muslims and non-Muslims in decisions and nomenclature, and used Islam as a tool for enhancing public loyalty to the state. But (with few exceptions) only when there was a clear need for it did they stress the dominance of Islam over other traditions. Thus, for example, in rebuilding a city after an earthquake, the state would invariably give the highest priority to restoring the symbols of Islam, such as mosque complexes; but in dispensing help to victims another interest would prevail: demonstrating the sultan's paramount patronage by caring for all of his subjects equally and offering Muslims and non-Muslims identical treatment.

Ottoman officials were not the only ones to ascribe importance to the religious, and hence also social and economic, boundaries between Muslims and non-Muslims. Priests and rabbis sought to maintain them too. A recent study has shown that in the early centuries of Islam, Christian and Jewish communal leaders were more keen on their communities' segregation than the Muslim authorities because their followers' reliance on the community for most needs increased their dependence on them.[8] In the Ottoman period, so the reactions to disasters reveal, minority leaders still adhered to a segregated-autonomous approach, while for the majority of Ottoman Christian and Jewish subjects – who were mostly concerned with making a living – such a division made little sense. For most members of the non-Muslim communities, integrating into Ottoman society patently outweighed the tendency for seclusion. That was so despite the near-monopoly that the faith-based community had in certain important matters, such issues as the collection and dispensation of charity, and education.

In exploring these questions, I relied on a wide range of sources. In the Ottoman Prime Minister's Archives in Istanbul (Başbakanlık Osmanlı Arşivleri), I consulted documents and registries covering financial, health, and internal matters. In the National Archives in London and the Chambre de Commerce archive in Marseille I examined consular and commercial correspondence from the Levant. Other, mostly published sources included Arab and Turkish chronicles and treatises, European travel accounts, and studies in various branches of the social sciences – most of which have been published. Parts of this study focus on greater *bilad al-sham*, or present-day Syria, Lebanon, and Palestine, as a case study, but the probe addresses itself

to other areas of the empire as well.

Ottoman History and Historiography

A detailed account of the history of the Ottoman Empire is beyond the scope of this study and quite unnecessary, given the wealth of existing scholarship.[9] But a quick survey of the events that formed the historic framework for the discussion here seems in order. The Ottoman state started as a principality in western Anatolia in the late thirteenth century. Under its first two rulers, Osman I (r. ca. 1299–1326) and Orhan (r. 1326–62), it conquered lands from neighboring principalities and the Byzantines. In 1326, the Ottomans took Bursa and made it their first capital; in 1365, having crossed into Thrace, they captured Adrianopole (Edirne). The Ottomans continued to invade lands in southeastern Europe and Anatolia throughout the fourteenth century. In 1453 the Byzantine state finally fell, when Ottoman forces under Sultan Mehmet II (r. 1451–81) conquered Constantinople and made it their third and final capital, Istanbul.

During the second half of the fifteenth century, the empire continued to expand into Europe and Anatolia. In 1514, under Selim I (r. 1512–20), Ottoman forces made advances into Safavid (Persian) territories and temporarily captured Tabriz. In 1516, Selim's army turned against the Mamluk sultanate, which governed Syria and Egypt from its capital in Cairo. By January 1517, the Ottomans had put an end to Mamluk rule. Ottoman territorial expansion into Europe, Asia, and North Africa continued under Selim's son, Süleyman I ("the Magnificent," r. 1520–66), including the conquests of Rhodes (1522), Tunis and Baghdad (1534), and Tripoli and the Libyan coast (1551). In 1529, Süleyman's forces captured Buda and went on to lay an unsuccessful siege to Vienna.

Süleyman's reign had once been viewed as the apogee of Ottoman power, the devastation of its fleet in the Battle of Lepanto (1571) as the beginning of a long decline that lasted until the empire's collapse in World War I. By now, however, most historians have abandoned this "decline" theory and adopted a different reading of Ottoman history.[10] Accordingly, from the early seventeenth century onward, the empire entered a "period of reorientation and consolidation" rather than decline – a time of introversion in lieu of imperial expansion. This was reflected, among other ways, in architectural style's becoming more local than imperial, and establishing of pious foundations in the seventeenth century to address social and economic uncertainties of the period, when great conquests came to be regarded as a matter of the past.[11] One historian has suggested that the

seventeenth century launched the "Second Ottoman Empire," characterized by weak sultans and governed de facto by bureaucrats, the Janissaries, and the *'ulama*.[12] In the Arab lands, the seventeenth and eighteenth centuries saw the rising power of local urban forces that periodically challenged the central government.[13]

The era of Ottoman "reorientation" or "Second Empire" ended with the reforms of the nineteenth century. These started with the unsuccessful attempts of Sultan Selim III (r. 1789–1807) to reform the army. His cousin, Mahmud II (r. 1808–39), continued them more vigorously, introducing innovations in education and the military and destroying the Janissaries in 1826. A period of reorganization, or Tanzimat, followed from 1839 to 1876, during which the empire underwent extensive changes, in administration and the army, communications, education and literacy, treatment of minorities, and more. Additional reforms took place under Abdülhamid II (r. 1876–1909) including, among others, the adoption by the empire of methods for disaster prevention, containment, and relief common in Europe and the United States since midcentury.

Most historians of the Ottoman Empire have primarily focused on political and economic factors when studying its rise, centuries of rule, and fall. In the last two decades, social historians have drawn our attention to other facets of Ottoman realities, exploring issues such as the family and women, food and drink, architecture, literacy, and poverty and charity, to name but a few.[14] Some studies have touched on natural disasters, notably plague epidemics and subsistence crises, to shed light on broader social and economic questions.[15] Few have closely examined natural disasters as such, or used them to penetrate a society that, compared to other civilizations such as Europe and China, left us less written evidence.

The classic work addressing disasters in a Middle Eastern context is, still, Michael Dols's *The Black Death in the Middle East*, published in 1977.[16] It provides a solid framework for studying plagues and famines, but it does not cover the Ottoman period. The same is true of Stuart Borsch's comparative study of Black Death effects in Egypt and England,[17] and of Justin Stearns's analysis of plague treatises in medieval Islam.[18] Nancy Gallagher's work on Tunisia, published in 1984, was the first to examine epidemics in an Ottoman context.[19] It was followed by Daniel Panzac's ambitious study of plague in the Ottoman Empire, covering a century and a half of the state's battle with epidemics and other calamities, and looking into demographic, economic, and social implications.[20] More recently, two works by Alan Mikhail and Sam White have incorporated evidence on natural disasters into a wider discussion of the forces of nature and the role

they played in Ottoman history.[21] In what follows, I challenge some of the precepts of the existing literature on disasters and Ottoman social history and suggest correctives to our understanding of Ottoman realities.

The reader familiar with recent trends in Ottoman historiography would perhaps wonder about the little sense of change over time this book conveys. Historians have long noted dramatic developments that took place in the empire between the sixteenth and the nineteenth centuries. Examples include adoption of different architectural styles; the transition from the "first" to the "second" empire; the rise of local families of notables to provincial leadership positions, replacing officials sent from Istanbul; the increasing involvement of the state in the internal affairs of guilds; the emergence of popular writing not grounded in the strict rules of the Muslim tradition, and of a new class of writers who were not trained as *'alim*s (religious scholars).[22] Accordingly, one might expect to find shifts in the empire's dealing with natural disasters over the period discussed in this book. Indeed, as I show in several places, change occurred. This was evident, for instance, in the gradual transition from shipping grain and other commodities to disaster-afflicted areas, to preferring a more passive approach such as issuing tax breaks. Change was also noticeable in the seventeenth century, when the empire stopped trying to prevent population flight and accepted it instead as a normal outcome of natural disasters. Overall, however, I found no evidence for meaningful transformations in the state's approach to disaster curtailment and relief before the second half of the nineteenth century. If such changes took place, they left no trace in the Ottoman official records I examined, in Arab or Turkish chronicles, or in European sources.

Natural Disasters in Human Record

There was nothing inherently Islamic or Middle Eastern in the responses to calamities considered in this book. Rather, they matched universal human reactions, whose roots go back to antiquity. Natural disasters, such as epidemics, famines, and earthquakes, appear in the Bible[23] and are documented fairly reliably for the ancient Greek and Roman periods.[24] From the late Roman and Byzantine eras, one finds more substantial historical evidence on the reactions of governments and individuals to natural disasters. Rulers dealt with subsistence crises by shipping grain to areas suffering from famine, reducing taxes in those regions, and granting other forms of relief. When famine in 333 CE left the people in Antioch and its vicinity in a state of starvation, Emperor Constantine donated large amounts of grain to

churches in the region, which distributed it to the needy. Emperor Julian shipped grain to Rome during a famine in 361 and to Antioch a year later, for similar reasons. Julian also remitted taxes, distributed land to the populace to alleviate suffering, and reduced the number of his court members who received food rations. When famine again hit Rome in 575–9, Justin II shipped grain there from Egypt. His successor, Tiberius II, imported bread from Egypt to famine-stricken Constantinople in 581–2.[25] Centuries later the Ottomans would use similar methods to alleviate famine suffering.

The epidemic known as the Plague of Justinian deserves a little more attention. Starting in 541, it developed into a pandemic that continued intermittently for two centuries, into the 740s. This is the first plague epidemic for which we have substantial evidence. During the 540s and 550s, the plague hit regions from Egypt to Constantinople to Rome and was coupled by local incidents of famine. The sources suggest that the authorities, religious communities, and individuals responded in ways similar to those observed during earlier and later subsistence crises and epidemics. People with means fled the plague-infected areas, a practice clerics condoned. Others stayed, either because they could not afford to leave or because they had to take care of other people. Farmers, fearing infection, reportedly refused to enter cities to sell their merchandise. Religious communities organized prayers and processions and collected and distributed items, food, and money as charity, at least during the early stages of epidemic when they were still functioning. Byzantine rulers, for their part, managed the situation as best they could. Since the existing medical wisdom assumed a connection between the stench emitted by decaying bodies and the spread of the disease, the authorities mostly concentrated on proper daily burial of the dead. Justinian commanded a swift and orderly interment of plague victims shortly after the plague had reached Constantinople. Subsequent rulers did the same.[26]

Responses on the communal and personal levels took on different forms. Eusebius of Caesarea (d. 339) witnessed a famine that entailed food scarcity, high prices, and multiple deaths of starvation. Epidemic followed famine, and even those who stocked up food could no longer be saved. Eusebius depicted a graphic scene of a dying city, as the moans of the sick mixed with the cries of the marching in funeral processions. The city filled with beggars, and bodies of the dead piled up in the streets, left for the dogs to eat.[27] Gregory of Tours offered an equally gruesome description of a plague in Clermont, France, in 563, which wreaked enormous devastation. More than three hundred bodies were taken to one church on a Sunday, and as many as ten bodies were interred in one grave. Many, among them church people,

fled the town. The plague of Clermont spread quickly to other cities, such as Lyons, Bourges, and Dijon, whose populations were likewise depleted.[28] Gregory found similar responses to plague in Marseille in 588: There, too, many left their homes and others, including the bishop of the city, shut themselves up in a church and engaged in praying while watching people on the outside dying.[29]

Migration, or temporary flight, was a common response to plagues and other disasters in the Byzantine period, as it would become in Ottoman times. Exodus was from rural to urban areas where food was presumeably more abundant (in times of famine), or from one city to another and to open areas (during plague epidemics and disasters that rendered people's houses uninhabitable: earthquakes, fires, floods). Not everyone had the means, physical ability, or desire to flee. For those who stayed there were other forms of reaction, mostly of a religious nature, such as mass public prayers and organized processions. The scarcity and rising prices of food also led to the selling of property, primarily farm animals: horses, sheep, pigs, and cattle. In some severe cases, people sold themselves or their children into slavery. Under especially harsh circumstances, people consumed what would in normal times be considered inedible, such as plants, wood, leather, earth, stones, and even human flesh.[30]

Overall, Byzantine sources make it clear that natural disasters occasioned much confusion. Earthquakes and plague sent many to the churches to pray for divine help, including people who had not visited them before. Hiding in a church was no guarantee against death, but it helped in uniting communities and getting people closer to the faith.[31] From the Antonine plague (165–85) on, nature was even said to have played a key role in the downfall of the Roman Empire and the rise of Christianity: As the state offered no solution to the displaced, especially the urban poor, the church moved to provide psychological relief that helped heal miseries and drew many within its fold.[32] The rising attractiveness of the church was but one mark of the confusion typical of disaster times. Along with piousness, Byzantine authors noted that earthquakes "opened the market for apocalyptic scenarios, charlatans, and other prophets."[33] Sometimes, rather than drawing people closer to the faith disasters did just the opposite. In sixth-century Constantinople, people often accused priests and monks of spreading the plague; in Thessaloniki (Salonica) some people distanced themselves from the church, as members of their household died while their pagan neighbors were not affected.[34] The inability to explain plague and other catastrophes beyond a simple attribution to God prompted wide-ranging reactions, often unrelated to religious beliefs. Disasters thus cannot be assumed to have attracted

society to one movement or religious idea.

Human reactions to natural disasters in late antiquity reflected the intricacies of people's expectations from the state, their community, and each other in times of crisis, and perhaps in other times as well. It is into this reality that the Muslim polity emerged in the early seventh century. The ideals of conduct under life-threatening conditions that were molded during and after the Prophet Muḥammad's lifetime reflected a dialogue with existing traditions and practices. Muslims adopted some of them, while changing or reinventing others. Yet over time, as this book will show, responses to natural disasters depended little on religious injunctions or communal expectations.

The Harshness of Plague and Famine

In the Ottoman period, the eastern Mediterranean continued to suffer from repeated natural disasters, such as epidemics, famines, droughts, earthquakes, floods, fires, and inclement weather in general. For much of the empire's history there was hardly a decade without a natural calamity of some sort. Certain areas were especially susceptible and suffered from epidemics or food shortages in two to five year cycles.[35] In the Ottoman Empire, as in India, China, and Japan, natural disasters formed an integral part of people's lifetime experience. They occurred so frequently that one could not pass more than a few years without enduring a disaster of one kind or another. Most people lived through several grave disasters and saw great loss of life, property, and long-term income.[36]

For the larger share of documented natural disasters in the Ottoman period we have little information beyond the fact that they occurred. By far the most recorded events – and hence those most discussed in this book – were epidemics, famines, earthquakes, and fires. One would perhaps assume a correlation between the severity of a disaster and the amount of documentation it elicited. As recent research has shown, however, such an assumption is problematic, because of a perceptive gap regarding the gravity of disasters: Sometimes the high frequency of calamitous events, including those that would nowadays appear as horrendous catastrophes, rendered them so routine to contemporaries that they did not merit particular attention or extensive documentation.[37]

Natural disasters were hardly ever entirely *natural*. A human factor played at least a nominal, and sometimes significant, part in the outcome of almost every disaster. Fires were often the result of inadvertent or intentional human action; the corruption of government officials, merchants, and city notables, as well as piracy

and looting of supply caravans, led to famines; and even the effects of epidemics and earthquakes could be exacerbated or attenuated by people's acts. Sociologists and psychologists often employ the same terminology and methodology in discussing the behavioral results of man-made and natural calamities.[38] Why, then, isolate disasters that had a *natural* cause? Why not discuss wars as well? Natural events such as epidemics and earthquakes were phenomena that Ottoman subjects could not explain. They therefore intrigued Ottoman urbanites far more than wars, dominated their marketplace and coffeehouse talks, and were reflected in numerous treatises and tracts that were written about them as a category in itself, and repeatedly reproduced. As with other matters beyond human comprehension, religious rationalization served as a default explanation for natural disasters. And, although they are hard to pinpoint, popular religious notions on how one should prepare for or respond to such acts of nature were certainly current in Ottoman cities. Since one objective of this study is to scrutinize the strength of religion and of communal expectations in Ottoman urban society, concentrating on this type of event seems worthwhile.

Plague, Famine, and Other Devastations

Epidemics were the most documented natural disaster affecting Ottoman society. Smallpox, typhus, syphilis, and cholera were among the infectious diseases endemic to the eastern Mediterranean, but by far the most common before the 1830s was plague (*ṭa'un*).[39] In its three forms – bubonic, pneumonic, and septicemic (of the blood system) – plague is believed to have been responsible for major epidemics throughout human history, including the plague of Justinian (541–2). It is now well established that it was the disease associated with the Black Death of 1347–51.[40]

To understand the occurrence and impact of plague in human history, a brief explanation of its biological background is necessary. Plague is caused by the bacterium *Yersinia pestis*. Its natural habitat is two types of rats: the house or black rat (*Rattus rattus*) and the Norwegian or brown rat (*Rattus norvegicus*). The disease is transmitted from rats to humans with the help of the rat flea (*Xenopsylla cheopis*).[41] Ordinarily, rats live in symbiosis with fleas and other parasites, and a rat may host hundreds of them at any given time.[42] The plague is initially spread within rat colonies, when rat fleas transmit it from one rat to another. Once rats begin to die, the fleas are forced to look for other hosts. Prior to the rapid industrialization of the nineteenth century – the paving of roads, banning of farm

animals and businesses depending on them from city limits, and development of modern sewage systems – humans were in constant proximity to rats and an easy target for rat fleas. The latter would seek human hosts when rats began to die of the plague. *Yersinia pestis* enters the human lymphatic tract system when rat fleas carrying the bacteria bite. It is eventually drained to one of the lymph nodes, where the bacteria multiply and the area swells (hence the name *bubonic*, from *buboes* that form on the skin). Left untreated, plague in its bubonic form kills about 80 percent of the sick within three to five days of infection.[43] The spread of bubonic plague was dependent on climate changes, as rat fleas reproduced effectively only within a range of temperatures (12 to 36.5°C) and as a critical mass of infected fleas was required to cause an epidemic among humans.[44] Such data help explain why historically plague epidemics subsided at times, only to reemerge several months later. For example, average temperatures in mid-eighteenth century Aleppo dropped to about 3–4°C in December–January and reached 38°C in June–August, with the result that there were few plague cases in the city in the winters and summers.[45] Moreover, recent work has shown that plague bacteria could survive for months in hydrated soil and then be transmitted to burrowing rodents, thus facilitating a new outbreak after an epidemic had already receded.[46]

For reasons that are not entirely clear, plague disappeared from Europe and most of the Ottoman Empire by the 1850s. Scientists and historians have suggested two possible explanations for this. First, in earlier times rats (like many other farm and domestic animals) were everywhere. Straw (used for roofing), grain, the backyards of public baths (where excrement and garbage were burned for heating water), and filthy places such as butcher's shops and tanneries were especially appealing to them. They would thus frequent streets, courtyards, homes, carriages, and ships. Their presence on vessels and within cargo was the key to the spread of plague from one region to another. The second explanation is that plague did not need rats to infect humans. Rat fleas could survive for long periods without a host. They would cling to people's woolen clothes, and since these were not washed often, fleas survived within the fibers of the wool for weeks, and traveled over great distances – a process known as metastatic leaps.[47] These two facts – the proximity of rats to humans and the use of wool as the primary material for clothes – seem to explain why past societies saw so many plague epidemics. Once farm animals were banned from residential neighborhoods, concrete and asphalt were used to pave streets and keep rats underground, cotton replaced wool as the chief component of clothes, and waste and excrement were disposed of in orderly fashion, the occurrence of plague decreased

considerably.[48]

Famine was another misfortune that frequently hit Ottoman society. Not all sharp price rises or food shortages resulted in famine; quite possibly, some of the events Ottoman subjects or foreign observers described as famine were merely short-lived subsistence crises that did not entail widespread starvation, mortality, and the behaviors psychologists often associate with famine.[49] It is nonetheless safe to assume that famine, whether local and brief or large-scale and prolonged, was experienced by many Ottoman urbanites more than once in a lifetime.

Several factors contributed to the eruption of famine. The most obvious was the occurrence of another disaster, natural or man-made, that damaged crops, their ability to grow, or their normal flow to cities. Among these were extreme weather conditions (hot or cold), droughts, floods, plant diseases, military operations, and raids on caravans carrying grain or other supplies. Famine could also result from the corrupt tactics of wealthy individuals or state officials, who drove prices up artificially and thus impaired people's ability to purchase food.[50] Problems caused by such misfortunes were likely to be exacerbated by the underdevelopment of irrigation technology in the Ottoman Empire.[51] Most of these factors characterized early or premodern societies in general, and today they remain typical of some developing regions of the world, where famine is still not a rare event.[52]

Beyond local causes for epidemic or famine outbreaks in a given region, one should consider global factors that engendered simultaneous disasters in areas remote from each other. For example, during the decade of the 1640s, temperatures declined all across the Northern Hemisphere, as a result of decreased energy emission by the sun and some major volcanic eruptions in the Pacific, whose emitted substance deflected the sun's rays back into space. There was abundant rainfall and snow in some areas, and drought in others, where cold temperatures and dry air stunted the growth of crops. Between 1640 and 1643, regions in Indonesia, China, Egypt, North Africa, and Spain experienced the driest years ever recorded. In China and in France these harsh weather conditions coincided with a series of famines and epidemics that had started in 1635 and were aggravated by the drop in temperatures and droughts.[53] The last decade of the seventeenth century was, again, a period of extremely cold weather throughout northern Europe, resulting in severe famine and epidemics.[54] China experienced a similar hardship and so did most of the Ottoman Empire.[55] In 1740–5, when the entire Fertile Crescent witnessed unusually cold weather, famine, and plague, parts

of Europe and East Asia experienced similar misfortunes.[56]

The lack of knowledge and technology for preventing or curtailing natural disasters contributed to the great toll they claimed prior to the twentieth century. People's economic and physical ability to withstand hardships also determined the outcome of outbreaks. With epidemics, famines, earthquakes, or fires occurring so frequently, the number of victims often increased from one event to the next. Hit by one disaster, families lost their source of livelihood or homes, or succumbed to prolonged diseases. When another catastrophe struck shortly thereafter, the already enfeebled victims were less able to endure it. In his study of the Great Famine that devastated Europe in 1315–22, William Jordan has suggested that the high mortality rate of the Black Death at midcentury "did owe something to the famine." He noted that if food intake is severely inhibited at a young age, the immune system does not develop properly, and recovery from prolonged starvation can never be complete. Thus, those who survived the Great Famine as children were particularly disposed to contracting the plague three decades later, as adults.[57] Similarly, children born during the 1958–62 Great Leap Forward famine in China and suffering from prebirth or infant malnutrition experienced increased mortality rates from various diseases at about forty years of age.[58] There can be little doubt that disasters had such enduring consequences for Ottoman societies as well.

Book Structure

The book is divided into five chapters. In Chapter 1 I ask why the Black Death (1346–53), a watershed in Europe's history (marking the end of the Middle Ages, according to some historians), was not followed by significant upheavals in the Middle East, at least not until the sixteenth century; this, despite the pandemic's hitting both regions, and the eastern Mediterranean basin's suffering as much as Western Europe. I attribute the difference to two main factors: an identity and leadership crisis in the church, and the many wars that ravaged Europe throughout the thirteenth and fourteenth centuries, which produced more epidemics and famines. Anatolia was the one scene in the Middle East of a major transformation, however, as the Black Death facilitated the rise of the Ottomans and hastened the fall of Byzantium. Tracing early Ottoman advances shows that they made most of their gains and posed a serious challenge to the Byzantine state only after the Black Death. The rise of the Ottomans was of essential import for the region, as it introduced a new social and political order, one of tolerance and acceptance, which would affect the way the Ottomans governed their subjects, Muslims and non-

Muslims.

Chapter 2 looks at the Ottoman state's reactions to natural disasters. I first trace some changes that had taken place in the responses from the sixteenth to the eighteenth centuries. I then examine evidence relating to one specific case study of postearthquake reconstruction from mid-eighteenth century Damascus. I argue that state resources were not allocated along religious parameters and that there was no prioritizing of Muslims over non-Muslims. Rather, other factors dictated Ottoman priorities, including a concern for privacy and the prestige of Ottoman sultans. This would suggest, more broadly, that the role of religion in defining the status of Ottoman subjects was more limited than we have usually assumed. Not quite the primary divider in Ottoman society, religious faith was one of many factors that shaped people's socioeconomic status and day-to-day realities.

In Chapter 3, I explore communal responses to disasters, relying mostly on the example of Jewish and Christian communities in Syria. I first discuss the role of the religious community in the lives of Ottoman urbanites, showing that there were alternative forums to it and arguing that the model of religious autonomy should be applied cautiously. In one area, however, the religious community had a near-complete monopoly: the collection and dispensation of charity. Giving rarely crossed confessional lines, and this had major implications for communal disaster relief, which relied mostly on charity money. When funds ran out, communities stopped serving as relief agencies, and people were on their own.

Chapter 4 reconstructs personal experiences of and reactions to disasters. It examines a variety of evidence from the pre-Ottoman and Ottoman periods to challenge the still-prevalent assumption that people responded to life-threatening situations according to their religious identity. Instead, one should consider a number of factors that affected their conduct, such as economic considerations, subjective perception of information, and sociological and biological factors. Research in the interdisciplinary field of disaster studies conducted in the last fifty years has pointed to a weak link between religious and group expectations, on one hand, and people's behaviors, on the other, under life-threatening circumstances. Studies have shown that interpersonal ties better explain responses to disasters. Through combining the findings of social scientists with historical evidence, I show that such psychological explanations are valid for Ottoman society as well.

Finally, in Chapter 5, I look at the period from the early nineteenth century to the fall of the empire, and examine developments that took place in the realm of disaster prevention and relief and their place in

the greater picture of Ottoman reforms. Focusing primarily on several case studies, such as the 1855 Bursa earthquake and the 1890s cholera epidemic in Istanbul and its environs, I maintain that the empire's refusal to embrace new methods of disaster prevention and control that had once proven effective in Europe, and the belated adoption of bacteriology and modern ideas of city planning, largely contributed to the collapse of the empire – a factor historians have hitherto overlooked.

1 Nick Oxford and Michael Schwirtz, "Milewide tornado strikes Oklahoma; dozens are killed," *New York Times* 21 May 2013, A1.

2 A partial list includes: Ronald Daniels et al., eds., *On Risk and Disaster: Lessons from Hurricane Katrina* (Philadelphia: University of Pennsylvania Press, 2006); Danielle Hidalgo and Kristen Barber, eds., *Narrating the Storm: Sociological Stories of Hurricane Katrina* (Newcastle: Cambridge Scholars, 2007); Shireen Hyrapiet, *Responding to a Tsunami: A Case Study from India* (Saarbrücken, Germany: VDM Verlag, 2007); Hillary Potter, ed., *Racing the Storm: Racial Implications and Lessons Learned from Hurricane Katrina* (Lanham, MD: Lexington Books, 2007); Harry Richardson et al., eds., *Natural Disaster Analysis after Hurricane Katrina: Risk Assessment, Economic Impacts and Social Implications* (Cheltenham, UK: Edward Elgar, 2008); Philip Steinberg and Rob Shields, eds., *What Is a City? Rethinking the Urban after Hurricane Katrina* (Athens: University of Georgia Press, 2008); Stanley Weeber, *Post-Rita Reflections: A Sociological Journey* (Lanham, MD: Hamilton Books, 2009); Rachel Dowty and Barbara Allen, *Dynamics of Disaster: Lessons on Risk, Response, and Recovery* (Washington, DC: Earthscan, 2010), 159–72; Seiko Sugimoto et al., "Sociocultural frame, religious networks, miracles: Experiences from tsunami disaster management in South India," in Pradyumna Karan et al., eds., *The Indian Ocean Tsunami: The Global Response to a Natural Disaster* (Lexington: University Press of Kentucky, 2011), 213–35; William Summers, *The Great Manchurian Plague of 1910–1911: The Geopolitics of an Epidemic Disease* (New Haven, CT: Yale University Press, 2012); Xun Zhou, *The Great Famine in China, 1958–1962: A Documentary History* (New Haven, CT: Yale University Press, 2012), 26–106; Joshua Miller, *Psychosocial Capacity Building in Response to Disasters* (New York: Columbia University Press, 2012), 1–31; Elya Tzaneva et al., *Disasters and Cultural Stereotypes* (Newcastle upon Tyne, UK: Cambridge Scholars, 2012); Katrin Pfeifer, *Forces of Nature and Cultural Responses*

(New York: Springer, 2012); Jennifer Duyne Barenstein and Esther Leemann, *Post-Disaster Reconstruction and Change: Communities' Perspectives* (Boca Raton, FL: CRC Press, 2013).

3 See, for example, National Research Council, *Facing Hazards and Disasters: Understanding Human Dimensions* (Washington, DC: National Academies Press, 2006), 124–68; Pamela Behan, "The first major U.S. urban evacuation: Houston and the social construction of risk," in Hidalgo and Barber, *Narrating the Storm*, 169–81.

4 Robert Stallings, "Weberian political sociology and sociological disaster studies," *Sociological Forum* 17 (2002), 2:283.

5 John Hannigan and Rodney Kueneman, "Anticipating flood emergencies: A case study of a Canadian disaster subculture," and Taketoshi Takuma, "Human behavior in the event of earthquakes," in E. L. Quarantelli, ed., *Disasters: Theory and Research* (London: Sage, 1978), 129–46, 159–72; Beverley Raphael, *When Disaster Strikes: How Individuals and Communities Cope with Catastrophe* (New York: Basic Books, 1986), 55–77; Thomas Drabek, "Disaster in aisle 13 revisited," Joseph Scanlon, "EMS in Halifax after the 6 December 1917 explosion: Testing Quarantelli's theories with historical data," and Dennis Wenger and Thomas James, "The convergence of volunteers in a consensus crisis: The case of the 1985 Mexico City earthquake," in Russell Dynes and Kathleen Tierney, eds., *Disasters, Collective Behavior, and Social Organization* (Newark, DE: University of Delaware Press, 1994), 26–44, 99–114, 229–43; Francesco Carloni et al., *Catastrofi naturali ed emergenze: Dall'intervento alla prevenzione* (Casale Monferrato, Italy: Piemme, 1996), 68–84, 107–28; Anthony Mawson, *Mass Panic and Social Attachment: The Dynamics of Human Behavior* (Aldershot, UK: Ashgate, 2007), 233–52.

6 M. Şükrü Hanioğlu, *A Brief History of the Late Ottoman Empire* (Princeton, NJ: Princeton University Press, 2008), 25. For the empire's religious identity, see Kaya Şahin, *Empire and Power in the Reign of Süleyman: Narrating the Sixteenth-Century Ottoman World* (New York: Cambridge University Press, 2013), 27–8, 41–3, 61–2, 91–2.

7 Abraham Marcus, *The Middle East on the Eve of Modernity: Aleppo in the Eighteenth Century* (New York: Columbia University Press, 1989), 41–2; Bruce Masters, *Christians and Jews in the Ottoman Arab World: The Roots of Sectarianism* (New York: Cambridge University Press, 2001), 26–37; Bruce Masters, *The Arabs of the Ottoman Empire 1516–1918* (New York: Cambridge University Press, 2013), 104; Donald Quataert, *The Ottoman Empire, 1700–1922* (Cambridge: Cambrige University Press, 2005), 180–4.

8 Uriel Simonsohn, *A Common Justice: The Legal Allegiances of Christians and Jews under Early Islam* (Philadelphia: University of Pennsylvania Press, 2011).

9 For histories of the Ottoman Empire, see Halil İnalcık and Donald Quataert, eds., *An Economic and Social History of the Ottoman Empire, 1300–1914* (Cambridge: Cambridge University Press, 1994); Quataert, *The Ottoman Empire*; Caroline Finkel, *Osman's Dream: The Story of the Ottoman Empire, 1300–1923* (New York: Basic Books, 2006); Colin Imber, *The Ottoman Empire, 1300–1650: The Structure of Power* (Basingstoke, UK: Palgrave Macmillan, 2009).

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University Press, 2010).

13 Jane Hathaway, *The Arab Lands under Ottoman Rule, 1516–1800* (Harlow, UK: Pearson, 2008), 59–82, 87–94.

14 See, e.g., Judith E. Tucker, *In the House of the Law: Gender and Islamic Law in Ottoman Syria and Palestine* (Berkeley: University of California Press, 1998); Suraiya Faroqhi, *Subjects of the Sultan: Culture and Daily Life in the Ottoman Empire* (London: I.B. Tauris, 2000); Watenpaugh, *Image*; Frédéric Hitzel, ed. *Livres at lecture dans le monde Ottoman: Revue des mondes musulmans et de la Méditerranée* 87–8 (1999); Amy Singer, *Constructing Ottoman Beneficence: An Imperial Soup Kitchen in Jerusalem* (Albany: SUNY, 2002).

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21 The two are Alan Mikhail, *Nature and Empire in Ottoman Egypt: An Environmental History* (Cambridge: Cambridge University Press, 2011); Sam White, *The Climate of Rebellion in the Early Modern Ottoman Empire* (New York: Cambridge University Press, 2011).

22 Watenpaugh, *Image*; Tezcan, *Second Empire*; Masters, *The Arabs*, 82ff; Dana Sajdi, *The Barber of Damascus: Nouveau Literacy in the Eighteenth-Century Ottoman Levant* (Stanford, CA: Stanford University Press, 2013), 77, 111–17.

23 For example: Genesis, 12:10; Ruth, 1:1; 1 Samuel, 4:17.

24 Thucydides provided one of the earliest detailed descriptions of a natural disaster in his account of plague in Athens around 429 BCE during the Peloponnesian War (Thucydides, *The History of the Peloponnesian War* [New York: Oxford University Press, 1960], 117–23). For earthquakes, see Nicholas Ambraseys, *Earthquakes in the Mediterranean and Middle East: A Multidisciplinary Study of Seismicity up to 1900* (Cambridge: Cambridge University Press, 2009), 91–2 (Rhodes, c. 227 CE), 151–6 (Crete, 365), and 184–9 (Antioch, 526).

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27 Paul Maier, *Eusebius: The Church History* (Grand Rapids, MI: Kregel,

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28 Gregory Bishop of Tours, *History of the Franks: Selections Translated with Notes by Ernest Brehaut* (New York: Columbia University Press, 1969), 92.

29 Ibid., 218–19.

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31 Anthony Kaldellis, "The literature of plague and the anxieties of piety in sixth-century Byzantium," in Franco Mormando and Thomas Worcester, eds., *Piety and Plague: From Byzantium to the Baroque* (Dexter, MI: Truman State University Press, 2007), 17.

32 Daniel Reff, *Plagues, Priests, and Demons: Sacred Narratives and the Rise of Christianity in the Old World and the New* (Cambridge: Cambridge University Press, 2005), 43–122.

33 Kaldellis, "Literature of plague," 18.

34 Ibid., 18–19.

35 Panzac demonstrated this in his lists of disasters (Panzac, *Peste*, 31–5, 508). I prepared a similar list for Ottoman Syria in the seventeenth and eighteenth centuries (Yaron Ayalon, "Plagues, famines, earthquakes: The Jews of Ottoman Syria and natural disasters" [Ph.D. Dissertation, Princeton University, 2009], 240–5).

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37 See, for example, Mikhail, *Nature and Empire*, 214–21.

38 One study used the same terminology to discuss 9/11 and natural disasters (Lee Clarke, "Introduction: 9/11 as disaster: On worst cases, terrorism, and catastrophe," in Lee Clarke, ed., *Terrorism and Disaster: New Threats, New Ideas* [Amsterdam: Elsevier, 2003], 1–6). Another used examples from World War II and road accidents, as well as natural calamities, to define a disaster (Gary Kreps, "Disaster as systemic event and social catalyst," in E. L. Quarantelli, ed., *What Is a Disaster? Perspectives on the Question* [London: Routledge, 1998], 31–55). See also Mawson, *Mass Panic*, 139–67.

39 A confusion in terms makes identifying epidemics as plague somewhat challenging: Two terms were used interchangeably in pre-Ottoman and Ottoman works: *veba* (from the Arabic *waba*', or "epidemic") and *ṭa'un* ("plague"). See Dols, *Black Death*, 35; White, *Climate*, 85–6.

40 For a general history of bubonic plague, see Ole Benedictow, *The Black Death, 1346–1353: The Complete History* (Woodbridge, UK: Boydell Press, 2004), 44–67; for the Plague of Justinian: William Rosen, *Justinian's Flea: Plague, Empire, and the Birth of Europe* (London: Jonathan Cape, 2007), 198–223. Ecological and archaeological evidence, as well as DNA testing of bones of people believed to have

died during the Black Death, prove that the epidemic was indeed the plague (Michael McCormick, “Rats, communications, and plague: Toward an ecological history,” *Journal of Interdisciplinary History* 34 [2003], 1–25; Stephanie Haensch et al., “Distinct clones of Yersinia pestis caused the Black Death,” *PLoS Pathogens* 6 [2010], http://www.plospathogens.org/article/info:doi/10.1371/journal.ppat.1001134, accessed 3 August 2014). For a detailed analysis of the different approaches to this question, see Ole Benedictow, *What Disease Was Plague? On the Controversy over the Microbiological Identity of Plague Epidemics of the Past* (Leiden: Brill, 2010), and especially 73–286. For a contrary opinion, see Samuel Cohn, “Epidemiology of the Black Death and successive waves of plague,” in Vivian Nutton, ed., *Pestilential Complexities: Understanding Medieval Plague* (London: Wellcome Trust Centre for the History of Medicine at UCL, 2008), 74–100.

41 Benedictow, *Black Death*, 11–19.

42 Sohail Soliman et al., “Seasonal studies on commensal rats and their ectoparasites in a rural area of Egypt: The relationship of ectoparasites to the species, locality, and relative abundance of the host,” *Journal of Parasitology* 87 (2001), 3:545–53.

43 Benedictow, *Black Death*, 18–20, 25–7.

44 M. Sharif, “Effects of constant temperature and humidity on the development of the larvae and the pupae of the three Indian species of *Xenopsylla*,” *Philosophical Transactions of the Royal Society of London* Series B, Biological Sciences, 233 (1949), 607:581–633.

45 Alexander Russell, *The Natural History of Aleppo* (London: G. G. & J. Robinson, 1794), 2:279–97, 315–33, 340–8.

46 Michael Drancourt et al., “*Yersinia pestis* as a telluric, human

ectoparasite-borne organism," *Lancet Infectious Diseases* 6 (2006), 4:234–41.

47 Metastatic leaps are one of the main explanations for the horrific success of the Black Death in Europe in the mid-fourteenth century (Benedictow, *Black Death*, 20–1, 61–5, 90–3, 101–6). A group of scientists has recently argued that plague during the Black Death was primarily pneumonic and transmitted via air droplets, hence explaining its rapid spread (Vanessa Thorpe, "Black Death skeletons reveal pitiful life of 14th-century Londoners," *The Guardian,* 29 March 2014, http://www.theguardian.com/science/2014/mar/29/black-death-not-spread-rat-fleas-london-plague, accessed 3 August 2014.

48 Gottfried Hösel, *Unser Abfall aller Zeiten: Eine Kulturgeschichte der Städtereinigung* (Munich: Kommunalschriften-Verlag, 1987), 67–110.

49 These include consuming inedible materials, expressing violence, and denying food and assistance to relatives and friends (Derrick Jelliffe and Patrice Jelliffe, "The effects of starvation on the function of the family and of society," in Gunnar Blix et al., eds., *Famine: A Symposium Dealing with Nutrition and Relief Operations in Times of Disaster* [Uppsala, Sweden: Almqvist & Wiksells, 1971], 54–63).

50 In December 1743, a treasure of hundreds of sacks of gold coins and grain was recovered from the cellar of Sulayman Pasha al-'Aẓm, the former governor of Damascus, who was apparently hoarding supplies for months while the country was suffering from famine. Another wealthy man, Muṣṭafa ibn al-Qabbani, reportedly hid hundreds of sacks of flour and sesame while market prices were high in 1745, but refused to offer his stock for sale even after the matter became public knowledge; see Aḥmad al-Budayri, *Ḥawadith dimashq al-yawmiyya* (Cairo: Al-Jam'iyya al-Miṣriyya, 1959), 54–5, 64–5. The latter author's real name was most likely Ibn Budayr and not al-Budayri as it appears in the edition I quote here (Sajdi, *Barber of Damascus*, 10–11).

51 Agricultural technology was only reformed in the last quarter of the nineteenth century (Donald Quataert, "Ottoman reform and agriculture in Anatolia, 1876–1908" [Ph.D. Dissertation, UCLA, 1973], 155–85).

52 See, for example: Arup Maharatna, *The Demography of Famines: An Indian Historical Perspective* (Delhi: Oxford University Press, 1996); Joachim Von Braun et al., *Famine in Africa: Causes, Responses, and Prevention* (Baltimore: Johns Hopkins University Press, 1999).

53 Michael Marmé, "Locating linkages or painting bull's-eyes around bullet holes? An East Asian perspective on the seventeenth-century crisis" and Geoffrey Parker, "Crisis and catastrophe: The global crisis of the seventeenth century reconsidered," *AHR* 113 (2008), 4:1053–79, 1080–9, and especially 1066–70, 1083; Emmanuel Le Roy Ladurie, *Histoire humaine et comparée du climat: Canicules et glaciers (XIIIe–XVIIIe siècle)* ([Paris]: Fayard, 2004), 356–66.

54 Ladurie, *Histoire*, 473–501.

55 Li, *Fighting Famine*, 31; White, *Climate*, 220–2.

56 Panzac, *Peste*, 32; Ladurie, *Histoire*, 573–612; Li, *Fighting Famine*, 32, 236–41.

57 William Jordan, *The Great Famine: Northern Europe in the Early Fourteenth Century* (Princeton, NJ: Princeton University Press, 1996), 186.

58 Li Yong, "The long-term effects of the 1958–62 famine on adult mortality in China" (Ph.D. Dissertation, Johns Hopkins University, 2006), 150–7.

1 The Black Death and the Rise of the Ottomans

News of the epidemic that would become the Black Death and the havoc it had wreaked in the East began to reach Florence in the late months of 1347. In the face of an impending disaster, the city took measures to halt the spread of the disease, which nonetheless broke out in March of 1348. As Boccaccio explained:

> All the wisdom and ingenuity of man were unavailing. Large quantities of refuse were cleared out of the city by officials specially appointed for the purpose, all sick persons were forbidden entry, and numerous instructions were issued for safeguarding the people's health, but all to no avail. Nor were the countless petitions humbly directed to God by the pious, whether by means of formal processions or in any other guise, any less ineffectual.[1]

The city's move to protect its inhabitants from disaster, and the various precautions taken by the latter, including confinement, flight, or both, marked a departure from past practice in European society. That God and the church should play a minor role in Boccaccio's account of the plague is not surprising: This Renaissance humanist was inspired more by antiquity and the Roman legacy than by the church. Still, his description leaves little doubt that times were changing. This was seen in the preparations for future epidemics – the introduction of quarantines, legislation regarding public hygiene – and in the intellectual discourse that sought explanations for the eruption of diseases and other natural blows beyond the supernatural.

The Black Death that decimated a third to two-thirds of the population in Europe[2] also contributed to many of the social, economic, and political changes there between the fourteenth and sixteenth centuries, and beyond. The epidemic that ravaged the continent from 1347 onward arrived from East Asia and, on the way, inflicted death and damage on the Middle East as well.[3] But the social and political upheavals it effected in Europe had no parallel in the

Muslim lands. This chapter will raise the question why this was so: why changes of the kind that occurred in one society did not take place in the other, despite both being subject to the wrath of the forces of nature similarly. To probe this matter, I will first examine the history of reactions to natural disasters in the Muslim world up to the Black Death,[4] then look at social changes that took place in Christendom and Islam after that cataclysmic epidemic. As we shall see, the differences between the two societies were, to a large extent, the result of long-term processes that had been already under way in Europe – but not in the Middle East – prior to the Black Death, which the Black Death had accelerated. Finally, although the consequences of the Black Death in the Middle East were in many ways milder, the chapter will argue that overall the plague played a major role in molding the region's history in one important respect: It facilitated the rise of the Ottomans. It was the Ottomans who introduced an inclusive political and religious culture to the region, one that was relatively open to new ideas, such as in the realm of disaster prevention and containment.

Natural Disasters in Muslim Societies before the Ottomans

Natural disasters in the pre-Ottoman Middle East and people's responses to them left little historical evidence. Beyond dates, and anecdotal references to the outcomes of some of them, notably epidemics, we are left for the most part in the dark.[5] This dearth of data stands in contrast to the plethora of theoretical discussions on various natural phenomena, again, mostly on epidemics, by local authors. One should use caution, however, when relying on such works as sources for actual history, as the link between theory and reality could be merely circumstantial. For example, it is hard to tell to what extent Muslim treatises on plague reflected popular perceptions and practices regarding disease and death. Before the late-nineteenth century, Middle Eastern societies were overwhelmingly illiterate, and the discourse among local scholars involved no more than a small circle of intellectuals trained in ruminating over past and contemporary scholarship. Muslim authors echoed the values and beliefs of those belonging to that circle, but not necessarily ideals shared by the larger public. Even manuscripts copied in relatively large numbers (a possible indication of their popularity, in a society without printing) still reached a very limited audience.

Still, the authors of tracts and treatises did not live in a vacuum. In medieval and early modern Muslim societies, being literate signified

one's belonging to a class that enjoyed more opportunities. If literary interactions were confined to an exclusive circle, Muslim scholars were also members of their society. They lived in cities, walked their streets, went to mosques, spent time in coffeehouses and the markets, and even traveled to other towns and countries. Their writings must have been informed by their personal experiences and social interactions as much as by the scholarship they read. It is also likely that their works on plague (and other natural phenomena) reached ordinary people through mosque sermons, street talks, and similar channels of public communication. Such popular exposure to written information was obviously partial, without the intricacies of the argument in the written tracts. A simplified version of the existing wisdom thus circulated orally and, with time, became part of a common cumulative knowledge, which people accepted as authoritative. One may therefore use religious, medical, and scientific texts with due caution as general indications of popular trends that may not otherwise be recovered, in medieval and early modern society.

The first natural disaster Muslims confronted was the Plague of ʻAmwas, an epidemic that erupted in 639, seven years after the death of Muḥammad; it was followed by famine. Named after a village in Palestine, the plague and famine hit areas from Syria to Arabia. It spread while the Arab Muslims led by the second caliph, ʻUmar ibn al-Khaṭṭab (d. 644), were consolidating their rule in the area, having conquered Syria and Palestine in the 630s. The Plague of ʻAmwas required the Muslim community (*umma*) to address the question of right behavior under such challenging circumstances. The foundations for considering the issue were laid during an earlier, smaller epidemic in Syria. ʻUmar and a group of his followers were on their way from Medina to Syria, when they met Abu ʻUbayda (commander of the Muslim armies and a companion of the Prophet; d. 638), who informed them that a plague was raging in Syria. After consulting his aides, ʻUmar decided to return to Medina. Abu ʻUbayda challenged the caliph's decision, arguing that interrupting the mission was tantamount to running away from God. ʻUmar replied that he was merely running from the will of God to the will of God. This tradition, as related by al-Bukhari, ends with a quote of the Prophet Muḥammad: If hearing that plague "is in a land, do not approach it; but if it occurs in a land while you are there, do not leave to escape it." This anecdote (its historical authenticity immaterial) established the general rule that authors of later plague treatises adopted: One should avoid entering a plague-stricken city, but should not try to flee from it if already there.[6]

Although ‘Umar’s decision was congruent with the Prophet’s guidelines, his return to Medina inspired a centuries-long debate among Muslim authors and Christian scholars living in Muslim lands regarding the right response to plagues and other diseases, such as leprosy. Of utmost importance was the question of contagion: If a disease could be transmitted from one person to another, there should be a way to prevent it, and if so, the argument that epidemics were a divine punishment for man’s sins would be hard to sustain. Muslim scholars managed to reconcile the two approaches by suggesting that, even though contagion existed, it was God’s decision whether or not a person would become ill. Most works on the subject, however, argued for either the existence or nonexistence of contagion and, consequently, whether one should or should not flee a plague-stricken area.

In his recent study, Justin Stearns has shown that the general attitude of Muslim authors to the question of contagion changed over the centuries. Most ninth- and tenth-century authors whose treatises are extant acknowledged the transmission of diseases among humans.[7] Later, during the period from the tenth century to the Black Death, scholars debated and sometimes tried to support both approaches – for and against contagion. It was a complex dilemma, best exemplified in the writings of Ibn Qayyim al-Jawziyya (d. 1350). Ibn al-Qayyim maintained that God produced the plague through an imbalance of the spirits, but also that plague was the result of bad air, miasma. He accepted the principle that one should neither enter nor flee a plague-ridden area, yet when trying to explain why such behavior was necessary he faced the difficulties of consolidating the prophetic tradition with Greek medicine: One was not to flee the plague because of trust in God, but also because of doctors’ belief that plague conditions weakened the human body and movement would make one more susceptible to the disease. Ibn al-Qayyim explained that both approaches, trusting in God and believing in contagion, were valid and could work well for different people. He whose belief was deep enough could repel contagion; he whose faith was weak had no choice but fearing it.[8] The acceptance of the two seemingly contradictory premises also appeared in the writings of Christians residing in the Muslim world, such as Ibn Sahl b. Rabban al-Ṭabari (d. after 855) and Qusṭa ibn Luqa (d. c. 920). The latter wrote a book on the question of contagion, where he admitted it was a controversial issue. [9]

For Stearns, the Black Death marks a turning point in the attitude of Muslim and Christian scholars toward plague. Some scholars of the generation that experienced the Black Death objected to the notion of

contagion; by the fifteenth century contagion was hardly an accepted concept. The work of Ibn Ḥajar al-‘Asqalani (d. 1448), who denied contagion, inspired Muslim scholars as far away as Spain. A respected and widely read scholar, Ibn Ḥajar was largely responsible for the intellectual shift that changed the balance between supporters and deniers of contagion in favor of the latter. Stearns then speculates that these attitudes would remain essentially unchanged until the nineteenth century.[10]

The writings of Jalal al-Din al-Suyuṭi (d. 1505) seem to vindicate Stearns’s assumption. Al-Suyuṭi, one of the most prolific authors in Muslim history, lived in Egypt during the closing years of the Mamluk sultanate. He wrote hundreds of works on diverse topics, from Qur’an and ḥ*adith* to geography, lexicography, and medicine, and issued numerous religious rulings. His works were copied time and again and later printed in numerous editions.[11] As plague was a frequent visitor to Mamluk Egypt, al-Suyuṭi wrote a tract on the origins, transmission, and appropriate responses to plague. His *ma rawahu al-wa‘un fi akhbar al-ṭa‘un* is an abridged and annotated version of Ibn Ḥajar’s main opus on the plague, *badhl al-ma‘un fi fadl al-ṭa‘un*.[12] Ibn Ḥajar was one of al-Suyuṭi’s admired scholars of the previous generation. Al-Suyuṭi’s reiteration of Ibn Ḥajar’s ideas on plague must have had a great effect, at least among the educated classes in Egypt and the Muslim world. In *ma rawahu*, al-Suyuṭi accepted Ibn Ḥajar’s premises. He equated dying from plague with a martyr’s death in battle, and insisted both the one who survived plague and the one who succumbed to it would be rewarded. Al-Suyuṭi condemned flight from plague, arguing that the most prominent of the Prophet’s companions disavowed ‘Amr ibn al-‘As (d. 664) for his flight from a plague in Syria.[13] In a small section on the possibility of plague occurrence in Mecca and Medina, he further underscored his rejection of the idea of contagion. Citing several prophetic traditions on the issue, he concluded with a quote of the Prophet: “Al-Madina and Makka are surrounded by angels; there is an angel at every gate, and the impostors and the plague cannot enter.”[14]

Given al-Suyuṭi’s view of plague as divine action from which one cannot and should not try to escape, one would expect him to have held similar views on other disasters. But al-Suyuṭi’s message was not as clear when considering earthquakes. One of the few treatises specifically devoted to the issue, his *kashf al-ṣalṣala ‘an waṣf al-zalzala* is an account of earthquakes in Muslim history with a discussion of why they happened and what one should do when they hit. His advice on avoiding earthquakes stemmed mostly from his belief that they,

like plagues, represented God's angry response to human misdeeds.[15] Accordingly, he recommended sermons and prayers, such as *ṣalat al-kusuf* (a prayer recited during solar eclipse), fasting every Monday and Thursday, and offering charity.[16] But what if disaster strikes – if an earthquake hits or is about to hit people's house – are they to flee the place? Here al-Suyuṭi was less unequivocal than with regard to the plague. He referred to a question that had been sent to him, about whether one could use an impending earthquake as an excuse to desert a group or leave the Friday prayer; his response had been that he had found no one in the sources who objected to such conduct, yet the matter deserved further investigation.[17] He then added a quotation from a Ḥanafi jurist, one Qaḍi Ḥan, who dealt with the question of leaving one's home for a nearby field when an earthquake hit. Qaḍi Ḥan had ruled that, on the basis of examples set by the Prophet, this was permissible even though many people condemned the practice.[18] Al-Suyuṭi did not state his view on that last point, and we may assume that he was at least ambivalent toward, if not approving of, fleeing.

The gap between al-Suyuṭi's clear view on plagues and his somewhat-hesitant treatment of earthquakes – both of which he perceived to be caused by God – may have reflected the state of the sources on which he relied. As a textualist, al-Suyuṭi had much more to work with when considering plague, and epidemics in general. A rich Islamic tradition about plagues from the time of the Prophet to his own enabled him (and Ibn Ḥajar before him) to engage in a scholarly debate with past authors. No such rich literature seems to have existed for earthquakes or other natural phenomena. Apparently al-Suyuṭi, like most authors from the Black Death onward, rejected the idea of contagion and, more broadly, of people's ability to change their fate by taking measures against plague. This approach does not disappear in his work on earthquakes, but since al-Suyuṭi found no direct reference to other disasters in the Muslim sources, he had to express a less decisive view.[19]

Fourteenth- and fifteenth-century authors writing in Arabic were, on the whole, averse to the idea that humans could do much to escape the harm of plague or other catastrophes, notwithstanding differences in their approaches to such disasters. As for the wider public, the extent to which the views of scholars became common knowledge is unclear. Prolific authors such as Ibn Ḥajar and al-Suyuṭi must have acquired influence through their teaching, and it is plausible that many people were familiar with their ideas. It might not be fanciful to assume, then, that Arab-Muslim society before the Ottoman conquest tended not to believe in contagion, was unresponsive to natural

explanations of plagues and other disasters, and was therefore also opposed to fleeing. Did such perceptions, if true, inform people's action when disasters occurred? Not entirely. As research has already shown, disasters during the Mamluk period – extreme climatic events, diseases, famines – caused population depletion in many areas not merely through deaths but also as a result of migration, especially from rural areas to cities.[20] Dols described quite a few cases of dispersed populations during the Black Death, in Egypt, Syria, and Anatolia. In later epidemics, Dols found that even Mamluk sultans fled Cairo when the plague arrived. Fleeing, he suggested, was against social conventions of Muslim society, yet many chose it as an outlet.[21] This leads us to a central dilemma of this study: the gap between common beliefs about disasters and the ways people actually responded to them. Why there was such a discrepancy is a question that defies a simple answer. As I will argue, a multitude of social, economic, psychological, and even biological factors determined how people responded to life-threatening situations. Before delving into the dilemma, however, I must turn to the changes the Middle East underwent as a result of the Black Death.

The Black Death and Its Aftermath

The Black Death originated from the Central Asian steppes, an area that was (and still is) a natural reservoir for plague.[22] From these regions it is believed to have spread east with the Mongol invasions of the thirteenth century into Burma and Yunnan, where it became endemic among rodent populations. Plague first erupted in China in 1331 and made cyclical appearances there throughout the fourteenth century. Especially severe were the epidemics that broke out from the early 1350s, during the rebellions and civil war that culminated in the collapse of the Mongol Yuan dynasty and the rise of the Ming (r. 1368–1644).[23] Concurrently, plague traveled westward, arriving in the Crimea in 1346 and in Constantinople in 1347. From there it spread into the Balkans, and via the Mediterranean and the Adriatic into Italy and the rest of Europe, and into the Middle East. It reached Sicily, Marseille, and Alexandria in 1347; and made its way north into Italy and France in 1348, the same year it reached Cairo, Tunis, and Damascus. From Damascus, the plague spread north into Anatolia and southeast into Mosul and Baghdad by 1349. It subsided in the Middle East by 1351, after the last outbreak took place in Yemen. In Europe, the Black Death manifested itself last in Russia in 1353.[24]

The Black Death and subsequent epidemics in the fourteenth and fifteenth centuries devastated Europe and the Middle East demographically. Historians have estimated that in Europe from 1346

to 1353, the plague killed between a third and two-thirds of the continent's population, and that in some areas nearly 80 percent of the inhabitants perished.[25] Recurrence of plague, wars, and famines prevented Europe's population from recovering till much later, probably not before the early seventeenth century. In Normandy in the 1420s, for example, the population was at about a quarter of what it had been on the eve of the Black Death, and one finds similar patterns in England and Norway as well.[26] In the Middle East, we may assume comparable demographic patterns, although evidence does not permit assessments as detailed as those given for Europe. Dols, who searched Egyptian chronicles for data on the scope of mortality in Cairo during the Black Death, could offer little beyond the general assessment that a great percentage of the population had died. Even without knowing the overall size of the population, he suggested, one may assume that the Black Death eliminated the majority of inhabitants in cities such as Cairo, Alexandria, Damascus, and Aleppo. This appraisal derives from reports – no doubt exaggerated, yet indicative – by contemporary chroniclers, who calculated the number of deaths to be in the hundreds of thousands; from official records (*diwans*) of casualties (even though they failed to register deaths among the poor and did not include children, the two groups most susceptible to the plague); and from the vast number of funeral processions observed in major cities, which reached hundreds daily. In rural areas, whole villages were deserted.[27] We may thus carefully assume that Black Death mortality, at least in Egypt and Syria, for which we have some crude data, was roughly akin to that of Europe in share of the total population.

The similarly sharp demographic decline in the Middle East and Europe should have had similar long-term implications for both societies. In some ways it indeed did. One important change historians have traced in both the Middle East and Europe was a shift from an agricultural-rural economy to an urban-centered one. It occurred in the two societies through different processes that led to similar end results. In Egypt, the death of farm animals and rural depopulation left large areas with inadequate labor to maintain crops and keep local irrigation canals (known as *baladi*) and dikes in working order. This meant that the Nile flood, which supplied water to Egypt's cultivated lands through a vast network of these canals, became harder to control. Egyptian historians who lived in the century and a half from the Black Death to the fall of the Mamluks, such as al-Maqrizi, al-Qalqashandi, Ibn Taghri Birdi, and Ibn Iyas, described in addition the decay of the larger network of canals, those maintained by the state (known as *sulṭani*). After the Black Death, mobilizing peasants to repair them became unfeasible and carrying out public works

cumbersome and expensive. The deteriorating irrigation system rendered extensive lands uncultivable, leading in turn to a decline in agricultural yield. For most peasants, the cost of living went up: The rents they were paying landlords remained unchanged, but increased in real terms because of inflation and the devaluation of copper coins (*fulus*) as compared to gold ones (*dirham*). Declining agricultural production and rising rents caused exodus from the countryside to urban centers. This process of decreasing agrarian output and dwindling irrigation system would be reversed only after the mid-sixteenth century, as a result of intensive Ottoman intervention.[28]

In Europe, too, the number of peasants and of the general population markedly declined with the Black Death. Paradoxically, peasants experienced better material conditions, both because marginal lands were no longer cultivated for lack of workers, and because the shortage of peasants pushed up their wages. In addition, with fewer people now consuming food, general nutrition in cities and rural areas improved.[29] All over continental Europe and in England, "wages rose, unemployment dropped, per capita income rose, and investment in the production of finished ... goods increased."[30] In the long term, urban depopulation, decreased demand for food, and government intervention to prevent prices from rising by stocking grain resulted in a drop in the price of most grains. Many farmers, faced with the need to pay higher wages to laborers and with declining income, moved to cities in the hope of finding better fortune. Overall, in the two centuries after the Black Death, European society became more urban.[31]

Apart from these analogous economic-agrarian developments, European and Middle Eastern societies followed very different paths in the centuries following the Black Death. Europe experienced far-reaching social and political changes from the second half of the fourteenth century onward that had no equivalent in the Middle East. The Black Death, along with the subsequent plagues that recurred in Europe until the early fifteenth century, are often seen as marking the end of the European Middle Ages. It was a watershed in European history, denoting the end of an era and the beginning of another.[32] No similar developments occurred in the Middle East until much later, and the obvious question is, Why? Why did two societies that seem to have sustained similar demographic, economic, and social effects of the plague, and that before the mid-fourteenth century had responded to plagues and other disasters similarly, take such strikingly divergent courses after the Black Death? The differences between Christian Europe and the Muslim Middle East were unmistakable: In Europe, disaster prevention and containment, poor relief, city governance, and

politics in general, as well as intellectual discourse, all took a sharp turn in the decades following the Black Death, but not so in the Middle East. A combination of preexisting conditions in one society that did not exist in the other, along with certain cultural and religious attributes, accounted for the differences.[33] To understand these differences properly, I shall first offer a closer scrutiny of the Black Death's effects on European society.

The Black Death in Europe: A Closer Look

Much of the change that affected European society in the aftermath of the Black Death was borne by broader processes that had begun prior to it. The horrific plague cycles of the mid- to late-fourteenth century contributed to a social transformation on many levels, but they were not its only, or even principal, promoter. The weakening authority of the church was perhaps the most conspicuous of these changes. The adverse demographic impact of epidemics was especially acute in communities of monks, nuns, and collegiate chapters: Evidence suggests that mortality rates there were higher – sometimes by as much as 60 percent – than among the general population, possibly because of close interactions between their healthy and sick members. This necessitated a hasty recruitment of church functionaries to refill the depleted ranks. The wave of new recruits comprised people from the laity, many of whom joined the clergy for the accumulation of wealth rather than for spiritual reasons. Under the circumstances, younger priests advanced in rank faster than they would have in the past. In the process, the level of Latin scholarship and writing among the clergy deteriorated, as fewer Latin instructors remained to teach the new recruits. This, in turn, initiated a process of gradual shifting from Latin to vernacular usage in liturgy.[34] This set of changes could not but erode the overall public standing of the church.

The erosion of church prestige had its roots in earlier times. The late-thirteenth century struggle between the popes and the kings of France and England over the right of kings to tax the clergy escalated by the early fourteenth century to an open intervention of the French court in papal affairs and the election of popes. The temporary relocation of the papacy to Avignon, lasting from 1309 to 1376, marked the de facto subjugation of popes to the French Crown. Famines, wars, and plagues did not help the papacy regain its moral authority within European society, which in the fourteenth century was probably at an all-time low. This decline in church authority encouraged debates between scholars and the Dominicans, exemplified in the open confrontation between William of Ockham (d. 1347) and the papacy over the church's wealth accumulation.[35] More

challengers of church authority followed. John Wycliffe's (d. 1384) open criticism of the church and the Avignon papacy gained much popularity, and opened the way for later dissenters, such as John Hus (d. 1415).[36]

One indication of the continued decline in church power was the emergence of civic organizations in European cities.[37] Most notable was the passing of alms collection and dissemination, and the dispensation of charitable services, from the clergy to secular agents. An elaborate charity system run by the church had sustained its authority over many of its followers, who were dependent on the congregation for assistance. The wresting of much of that authority from its hands through a series of laws and regulations regarding poverty, beggars, and the sick further weakened the church.[38]

That the handling of charity was taken over by private societies, laymen, and city councils signaled a shift in society's ideas about poverty. Previously, poverty was perceived as an unavoidable fact of life, sometime even a virtue, and charity as a means to alleviate misery, not to eradicate poverty. This view was cultivated by the church, whose monopoly on aiding the poor was a source of strength, with millions of Christians all over Europe heavily dependent on its institutions. The church therefore had no interest in resolving the problem of poverty for good. Civic authorities, however, had different priorities. They viewed poverty with disdain, an impediment to progress and to their envisioned modern, clean city. If charity would not resolve poverty, it could at least take it off the streets. Cities issued antibegging regulations and introduced criteria that distinguished between "deserving" poor, who qualified for assistance, and "undeserving," who were forced to work, fined, imprisoned, or expelled from the city. A related development was the change in the nature of hospitals, from houses caring unselectively for the poor and sick, managed by the church and run by a priest or bishop, to institutions run by civic officials under city regulations. By the mid-sixteenth century, many cities and states had poor laws that governed the administration and funding of hospitals and defined who would be entitled, or forced, to receive treatment in them. They also specified who would be prohibited from entering the city, and prescribed punishment for violators.[39]

Besides marking the weakening of the church, poor and sick regulations reflected changes in common notions regarding the state's role in the lives of its citizens, and the boundaries that authorities were allowed to cross. The shift was clearly seen in state efforts to control the spread of plague. Towns in Italy, such as Pistoia, forbade contact with places affected by the plague as early as 1348. In 1374,

Bernabo Visconti, lord of Milan, placed guards to block the entry into the city of people from plague-stricken areas. In 1377, authorities in Ragusa (Dubrovnik) imposed mandatory thirty-day isolation on all ships arriving at the city, for fear of contagion. In the following century the rule was extended to forty days (hence the term "quarantine," from the Italian word for forty, *qaranta*) and to visitors arriving by land as well. By the outbreak of plague in 1400, and certainly by the mid-fifteenth century, most states in the Italian peninsula had instituted quarantine regulations, or other policies governing travel and entry in times of plague.[40] In the sixteenth century, quarantine of merchandise, people, and houses had already been a widespread mechanism of plague prevention all over Europe and, as a result, of firmer control of governments over the affairs of their people, and especially over travel and population movements.[41]

From the late-fourteenth century on, the evolution of charitable practices in Europe and the growing perception that poverty bred crime and disease led to improved hygiene in cities. Deeming plague to be caused by poisonous vapors, cities began to prohibit burial in churchyards and to establish extramural cemeteries instead; by the late-sixteenth century, burial outside city limits was the norm in many European towns. Plague was not the only reason for the shift to extramural burying: As Craig Koslofsky explains, the early sixteenth century increase in population rendered burial in churchyards impossible and prompted city leaders to worry even more about diseases and public health.[42] Many poor laws were introduced during the first half of the sixteenth century, in part in response to swelling of pauper and beggar populations. Laws on cleanliness, the storage and disposal of waste, and the raising of farm animals within city walls were also promulgated.[43] City or state intervention in such matters had implications beyond the improvement of public hygiene. The prohibition of intramural burial interrupted centuries-old traditions of rites and customs associated with the world of the dead; just as quarantine did with the sick, it placed the dead outside the domain of the living. Likewise, rules that limited the breeding of animals, required city residents to install cesspools, or demanded that they store garbage in receptacles and orderly dispose of it (rather than throw it out the window) interfered with time-honored notions of private and public. The state now penetrated areas that, in earlier centuries, it would not dare enter.[44]

The initially limited city and state infringement on the private domain gradually evolved into a power to regulate building, redesign cities, and eventually share – and even control – domestic culture.

This was best seen in the reconstruction of London after the Great Fire of 1666 and of Lisbon following the 1755 earthquake (see Figure 1.1). After the fire in London, King Charles II ordered that land be surveyed and a new grid be set for the entire city. The architect Christopher Wren replaced a medieval city landscape of warrens and alleys with wide streets designed for better passage and enhanced commercial activity, and hence also for improved governmental observation and control of inhabitants' daily affairs. The rebuilding of London introduced government and city regulations for private home construction and design.[45] In Lisbon, the immediate response of the royal court of José I included disposing of bodies, cleaning streets, ensuring food supplies, and suspending certain taxes.[46] A few weeks later, the secretary of state, the marquis de Pombal, launched a reconstruction project with the help of hired teams of engineers and architects. As in London – and in contrast to previous disasters – much thought was given to an urban design that would be more damage resistant and reflect a vision of a modern city.[47]

Figure 1.1. The Lisbon earthquake. *Source: Servet-i Funun*, 1:15, 2 July 1891.

The Black Death should also be seen, more broadly, in the context of the fourteenth century's environment and man-made disasters. Even without the Black Death, this was a difficult century to live in. Throughout most of it, from the first decade to at least the late 1370s, Europe suffered from especially cold and long winters coupled with distinctly cool and dry springs and summers. With a few exceptional

years of moderate weather, the period of the Little Ice Age had a climate characterized by long droughts.[48] This had a devastating effect on harvests, and extensive areas were repeatedly hit by famine. Most horrendous was the Great Famine of 1315–22, caused by a mixture of adverse climate conditions that resulted in poor harvests and hence shortage in the markets; demographic pressures due to Europe's dramatic population increase in previous decades, which further exacerbated the economy; and wars in Scandinavia, Germany, Flanders, and the British Isles, which further disrupted food distribution.[49] From local skirmishes to the English-French encounters known as the Hundred Years' War, fighting continued to ravage Europe after the Great Famine and for much of the century. On one hand, the plague in its recurring cycles "resolved" problems of population pressure and improved subsistence by cutting demand more than production. On the other, the Black Death aggravated the tragic losses caused by famine, harsh weather, and war.

All of these destructive blows created a gloomy post–Black Death world, perhaps even gloomier than that of the Middle Ages. Uncertainty and fear of further impending disasters prevailed. Pessimism also marked the art of the period, in which grief, suffering, retribution, Christ's passion, torture in hell, and death were central themes.[50] As one historian has noted, the recurrence of the *danse macabre* in texts and in illustration in painting and sculpture, from the second half of the fourteenth century onward, was innately tied to plague outbreaks and the sense of imminent disaster.[51] European society's obsession with death was also seen in the increasing public prominence of funeral processions and their becoming occasions for projecting social status. In Florence, for instance, a culture of funeral flamboyance developed in the second half of the fourteenth century. Wealth and status were nowhere better displayed than in funerals; some lavish processions included "stunning shows of candles, sumptuous bier cloths, caparisoned horses, and other displays of material wealth."[52] The pessimism spawned by the blows of nature was exacerbated by the crisis in the church and its public role. We have already noted the decline in the church's spiritual authority, following the depletion of its ranks and the appointment of lay and often unfit people to replace the old clergy. More generally, there was a pervasive sense of disappointment with the church, which had not found a solution to the plague. The second half of the fourteenth century saw a dramatic rise in donations to the church and of church building all over Europe, but it was also a period of many misgivings regarding the social and religious order that had existed until then. The church "continued as an immensely potent force ... but the unquestioned authority which it had been used to exercise over its

members was never to be recovered."[53]

Fear and doubt bred gloom. But they also advanced new ideas and forms of scholarship, known as civic humanism. Renaissance humanism had its origins before the Black Death: Petrarch (d. 1374) wrote his epic *Africa*, which garnered him much fame, before 1340; and his friend Boccaccio gained reputation with the writing of *The Filocolo* at least a decade before his famous *Decameron*. Plagues, however, changed the ways authors of the time were writing. This happened not only because authors such as Petrarch and Boccaccio lived through the plague, lost friends and family, and experienced suffering firsthand,[54] but also because people's outlook on life, their place in this world, and their point of reference were profoundly shaken. From these uncertainties new forms of piety emerged, which prompted people to sponsor artists and scholars, and which in turn encouraged the rise of prolific secular historians, translators, copiers of ancient texts, book collectors, and artists. It was a movement typified by fascination, sometimes obsession, with every aspect of the ancient world. And it produced many works in the vernacular, making knowledge accessible to more people. According to Hans Baron, important advances in the Renaissance took place only after the emergence of civic authorities that allowed authors and artists the freedom to create, and when the solitary medieval scholar was replaced by the politically active one.[55] The works of Renaissance humanists spread across Europe, especially following the advent of printing. The invention of the printing press in the mid-fifteenth century facilitated the widespread diffusion of ideas and was thereby responsible, to a large extent, for the success of the Protestant Reformation, for the scientific revolution, and for the rise of explanations for natural disasters not involving God.[56]

Taking place after the changes alluded to previously, the Great Fire of London and the Lisbon earthquake were "modern" disasters. They were modern not merely because they allowed authorities to enhance their control over public and private spaces, but also because they prompted a public debate about disasters, which in turn stimulated a philosophical discussion of religion, science, and society that prepared the ground for modern political and economic thought. In the aftermath of the London plague of 1665–6, new theories appeared on how to confront future disasters in more economical and humane ways.[57] The Great Fire was the initiating moment for John Locke and other philosophers and political theorists. In postfire London, issues of religion and political authority were discussed in cafés and in printed books and pamphlets.[58] The London fire primarily preoccupied the English, but the Lisbon earthquake was, probably for the first time,

discussed across Europe and beyond.[59] Coming about during the optimistic age of the Enlightenment, it inspired scholars across countries to consider its occurrence and relevance to society. Voltaire's famous *Poème sur le désastre de Lisbonne* was one such piece on the catastrophe, which was also addressed by novelists, playwrights, and poets all over Europe. They debated the roles of God and science in such horrendous events and, more broadly, the real meaning of good and evil.[60] Such literary developments could hardly have taken place without the earlier transformations that followed the Black Death.

Why Was the Middle East Different?

The Black Death and subsequent natural disasters, the crisis in the church, wars – all of these generated vast changes that would transform European society, politics, and religion in later centuries. In the Middle East such changes were much slower to evolve. As in Europe, the Black Death in the eastern Mediterranean was only one in a series of natural disasters that hit the region in the thirteenth and fourteenth centuries. Egypt and Syria, for example, experienced famine in the years 1264, 1295–6, 1336, 1373–5, 1394–6, 1402–4, and 1415–16.[61] As in Europe, plague and other epidemics continued to strike after the Black Death, erupting in 1362–4, 1373–5, 1395, and 1405 and probably in other years as well.[62] Their main causes were the same in both Europe and the Middle East: filthy and overcrowded cities, irregular food supply, and failed harvests due to drought, or, in Egypt, a low Nile flood. Some of these natural adversities may have been triggered by the extremely cold Little Ice Age climate of the fourteenth century, which affected Europe and the Middle East.[63] Yet the cumulative effect of these disasters seems to have been different for Christian and Muslim societies. The latter experienced no religious upheaval as dramatic as its European counterpart; intellectual, artistic, and architectural changes were slower to develop there; and ideas about poverty, charity, and health had not changed as profoundly as they had in Europe, until the nineteenth century.

Probably the most important reason behind these differences was the absence, in Islam, of an institution equivalent to the church. For Christians of medieval Europe, the church was an essential element of their existence. It was all but synonymous with society as a whole: One became a member of it from birth, and baptism bound a person in obligations that could not be undone. The church had no coercion mechanism similar to those available to emperors, kings, or even the community. But it owned vast lands and other property; had its own laws, courts, tax collectors, administrative apparatus; and was run by

a political system headed by popes, who believed that all other governing powers were their subordinates. Everything of import in one's life, from birth through family celebrations to death, occurred in the church or was governed by it. Given the church's control over people's significant lifetime events and over the collection and dispensation of charity, people's relationship with it was one of near-absolute dependency.[64] In the Muslim world, the role of religion in a person's life was quite different. Here, there was no one supreme source of spiritual guidance, nor a rigid hierarchical structure of transmitting the faith to the individual believer. Instead, there existed a diffuse network of scholars, judges, mosques, schools, and lodges. To be sure, religious belief was central in the lives of the vast majority of Muslims, but a structure of binding association and control like that which existed in Christianity was unknown in the Muslim world.

These essential differences in the role of religion meant different expectations from the institutions representing it: the tighter the control and dependence, the higher the expectations. When expectations were frustrated, because the religious leadership failed to prevent or alleviate suffering, the public standing of religious organizations declined. In Europe, as we have seen, recurring natural crises contributed to a weakening of the church and to the gradual assumption of its tasks by new civic authorities. Old practices of charity, and the belief in the inevitability of poverty, disease, natural disasters, and premature death – all marks of church power – had to go. The church had failed to defend Europe from the Black Death. Now civic authorities were prepared to seek other solutions.

In the fourteenth-century Muslim world, by contrast, there was no comparable challenge to religious authority, because religion was more remote from political power. Islam emerged as a polity whose leaders, the Prophet and his early successors, the Rashidun (632–61) and Umayyad caliphs (661–750), embodied at once religious and political authority. Under the Abbasids, the caliphs were still seen as both religious and political leaders, but their political power declined after the mid-ninth century and was all but gone after the Buyid (or Buwaihid) takeover of Baghdad in 945. Since that point and until the Mongol sacking of the city in 1258, the caliphs served mostly as symbols of spiritual authority in the Muslim community, while political-military power rested with others, the Buyids and the Seljuqs who replaced them. By the time the Mamluks gained power in Cairo in the mid-thirteenth century, the split between political and religious authority was complete. The Mamluks kept an Abbasid caliph in their court and maintained the *shar'i* judicial system to enhance their legitimacy, but this was a symbolic token more than anything else.[65]

The Mamluks, who ruled Egypt and Syria during the Black Death, were not religious rulers, but they did operate within a general framework of Islamic norms. This included the practice of charity. As in Christianity, charity in Islam had been inseparably tied to religious rites and duties. Giving to charity was a religious duty, and paying an alms tax (*zakat*) was one of the five pillars of the faith binding on all Muslims. But unlike in the Christian world, there was no central agency in Islam to administer charitable collection and distribution. The organized levying of *zakat*, once a state responsibility, was abandoned at some point before the rise of the Ottomans and became a personal duty of each Muslim, not a state obligation. The definition of poverty, and the role of a ruler and of society in alleviating it, derived from two sources: the prophetic tradition, which treated poverty as a given and the poor as an integral part of society to be treated with compassion; and the concept of moral economy, which guided the Mamluk and later Islamic states and which regarded feeding the subjects and making foodstuff affordable as essential to government survival.[66] Rulers were expected to help their subjects in times of crisis, but not to resolve poverty altogether. The poor had to exist, in part because helping them was a binding duty. Aiding the indigent was a central feature of Muslim social routine: from alms collecting in mosques, through property endowing as *waqf* for the needy and donating to existing foundations, to unrecorded private giving by individuals. The Qur'an broadly defined the criteria for entitlement to charity, and these were applied in poor relief throughout the Muslim world. The poor, then, fulfilled an important role in Muslim society rather than posing a problem to it. And rulers had an interest in maintaining that system and contributing to charity, which portrayed them as just and pious.[67]

There were other differences between European and Muslim societies at this juncture. One was related to political continuity. As I have already explained, wars and conquests devastated Europe in the fourteenth century. The scene was quite different in Egypt and Syria, where Mamluk rule was marked by relative stability, which made new social and political movements less likely to emerge there. Despite power struggles among Mamluk elite groups, some minor rebellions against them, and one dynastic transition in 1382, when the Burji household under Barquq replaced the Baḥri Mamluks, there were no meaningful challenges to Mamluk rule from their defeating of the Ilkhanids in Marj al-Suffar (outside Damascus) in 1303 until the early sixteenth century.[68] Only in Anatolia was the situation somewhat similar to that of western and central Europe. Political and military strife there from the eleventh century led to a redrawing of the political map by the thirteenth century, and to the emergence of the

Ottomans there in the early fourteenth.

Another difference was that in Europe, emerging civic authorities reflected the new political and social spirit of the Renaissance. One important expression of this was that after the mid-fourteenth century, more and more texts were written in the vernacular instead of Latin. Latin had been the language of liturgy and scholarship in the Middle Ages, and the church had a near-monopoly on its instruction, which took place primarily in churches and monasteries. Since writings were produced mostly in that language, the church largely controlled the dissemination and quality of knowledge. As scholars began to shift to the vernacular, and as liturgical texts were being translated from Latin after the sharp drop in Latin scholars after the Black Death, people began to connect to their faith in new ways. Many became exposed to secular texts, directly or by listening to others read them. In the Middle East, too, scholars must have perished in great numbers during the Black Death. But this did not result in a linguistic and textual predicament as it did in Europe. Unlike Latin, Arabic was the language of ritual as well as of scholarly and mundane affairs. True, street Arabic was different from that of the Qur'an, ḥ*adith*, or that in which scholars like Ibn al-Qayyim and al-Suyuṭi phrased their ideas in writing. But the gulf between them was not so significant, and surely smaller than that between Latin and the European vernaculars.[69] The Islamic scholarly tradition was revered by its believers, but few were exposed to it firsthand. This did not change after the Black Death, because nothing had occurred that would upset the equilibrium between the spoken and the written idioms. Equally important, printing, the powerful dynamo of cultural change in Europe, was not adopted in the Muslim world until centuries later. Why this was so is a question more intricate than it seems at first glance; it is beyond the scope of our discussion here.[70]

The shift in Europe from the parish and diocese to urban civic authorities as key organizational units facilitated the emergence of modern practices of poor relief and disaster control. By contrast, Mamluk and Ottoman cities, although featuring most of the attributes of urban centers as defined by Max Weber – fortifications, markets, a network of streets and alleys[71] – did not develop administrative independence. Some cities did serve as the seat of provincial governors, and others had strong local leadership of urban notables. But political authority lay with the central government, which treated the cities as convenient units for land division, trade, raising taxes, and military conscription, run by state agents. Formal municipal authorities were established only after the mid-nineteenth century. Until then, Middle Eastern cities did not evolve into autonomous units

akin to those that had emerged in Europe. An Islamic city's local leadership was thus in no position to introduce practices that would challenge established conventions.

It is no wonder, therefore, that the definitions of poverty and of entitlement to charitable aid did not change much in the Middle East during the century after the Black Death. The authorities did not apply any novel measures in combating poverty, eliminating beggary, or isolating the sick. Throughout Islamic history, beggars, wayfarers, and the sick had always had places to turn to for sleep, a warm meal, or medical treatment. Aid was extensively delivered in mosques and many cities also had hospitals. The Umayyad caliph al-Walid (r. 705–15) built what seems to have been the first hospital in Muslim history, in Damascus.[72] His hospital, and many others that sprang up subsequently, were founded as charitable institutions, usually in proximity to a mosque. They took care of the physically and mentally ill, as well as passersby who had no place to stay; patients were offered at least three days of hospitality. The functions of the Islamic hospital apparently had not changed much by 1427, when a man who was on his way to the ḥ*ajj* in Mecca was so impressed by the Nur al-Din hospital in Damascus that he pretended to be sick and was hospitalized there for three days, during which he was served the most exquisite foods.[73] Staying at a hospital was voluntary. There might have been cases when mentally ill patients or criminals were forcefully placed there,[74] but the Mamluks implemented no policies such as those enacted in fifteenth-century Europe, where civic authorities and private societies transformed medieval hospitals into institutions for the involuntary confinement of the poor who refused to work or leave town, the sick, and prostitutes.[75]

The role and norms of hospitals were slow to change in the Muslim world, as was the common perception regarding the scant relationship between poverty, hygiene, and disease. Muslim scholars in the aftermath of the Black Death still adhered to the old distrust regarding contagion and did not question the premise that plague and other disasters were caused by God. Nor was there a systematic effort on the part of the government to deal with disasters, partly because of internal political rivalries that haunted the Mamluks from the late-fourteenth century. This was clearly the case during the 1374–6 famine and epidemic and in later crises in the fifteenth century; in the famine and plague of 1402–4, the state made perfunctory attempts to feed the poor.[76] Another possible explanation for Mamluk inaction is more significant. With their power on the decline from the late-fourteenth century on, Mamluk sultans may have been cautious about meddling with a centuries-old order, in which the state was not

expected to interfere in certain matters. Charity was mostly conducted privately, and the government would be overstepping its boundaries if it attempted to regulate it, by taking beggars off the streets or confining the poor and sick in asylums. It is equally possible that, for the same reason, no visible changes occurred in hygienic routines such as street cleaning, garbage collection, and burial practices. The prevailing denial of contagion precluded a connection between courtyard and mosque burials and disease. Even the growth of cities in Egypt and Syria did not lead to the relocation of cemeteries. Prohibiting burial in residential areas would have removed the world of the dead, with its associated rites and customs, from that of the living and would have changed society's daily functioning. The same can be said about quarantine policies, which were introduced in the Middle East by the Ottomans only in the eighteenth century and fully implemented in the nineteenth, just as they were being phased out in Europe. When quarantine was introduced in the Middle East, it met with many enemies, some opposed to it on religious grounds, others because it created artificial barriers in society.[77]

That one society should embrace measures that another had rejected may suggest that, beyond the causes already considered, cultural factors were also at play here. For example, it is plausible that Christian and Muslim societies in general had different perceptions of threat: A disaster that could shatter the social structure of one might be seen by the other as just another natural occurrence. Alan Mikhail has persuasively shown that in the eighteenth-century Middle East, plague was regarded as an integral quality of the environment, an event people expected and were trained to deal with.[78] This was apparently no different in the fourteenth century. In Europe, wars, the decline of church power, and the rise of the city led to a new understanding of death. Not so in the Middle East, where customs and rites related to disease, dying, and death all remained basically unaltered. Another possible cultural factor, more easily cited than explained, could be differences in mindset between European and Middle Eastern societies. Many times throughout its history, Muslim society was more suspicious of new technologies and innovations than its European-Christian counterpart. Precedent had immense power; when past practices and innovation clashed, the former was usually more likely to win.[79] Reverence for precedent was probably also a major reason why Muslim societies rejected printing for such a long time, as it would have altered old practices of copying texts and rendered some highly revered professions, such as scribes, obsolete.[80] Time-honored norms prevailed over novel technology. And, unlike in Europe after the Black Death, no major crisis occurred in the Middle East that would prompt people to reconsider those norms.

Muslim adherence to precedent, which historians often evoke to explain why changes did not occur, was more than just a theoretical principle. It characterized Islamic scholarship and was a central brick in the edifice of early as well as later Islamic commentaries. It informed the reasoning of plague treatises, rulings of Ottoman jurists on social issues, and Muslim court (*maḥkama*) decisions all over the empire. The weight of precedent grew under the Ottomans compared with earlier Islamic states, apparently underlying their careful keeping of records.[81] With such preference for old over new, change had to be slower to emerge in the Ottoman Empire than in Europe. During the centuries from the Black Death to the nineteenth century, realities in the empire did alter in more ways than one, and new ideas were introduced, but on the whole these were subtler and more limited changes than those affecting Europe. Religious practices changed little; the basic tenets of politics remained the same; and new forms and genres of writing did not emerge. Needless to say, cultural explanations such as these are ever problematic and even carry the risk of a condescending reading of the other society. One should therefore be especially cautious not to ascribe to them undue interpretive weight. Yet, it might be unwise to discard them altogether as useless.

In the fourteenth century, the conditions were ripe for a deep social transformation in Europe, and the Black Death served as a catalyst. Similar conditions did not exist in the Middle East at the time of the Black Death, nor in the following decades. In the two centuries after the Black Death, Europe leapt into a new age that gave it a significant technological advantage over the rest of the world, including the Middle East and China. It would make Europeans pioneers of geographical exploration, leaders in international trade, and exploiters of other countries through colonization. The Black Death thus created a new world in Western Europe, which had no parallels elsewhere. But in one area of the Middle East, in western Anatolia, the Black Death made worse the effects of other political and natural disasters on a crumbling Greek civilization. It was during the years of the Black Death that the fate of the area was decided in favor of a rising power, the Ottomans, who in the following two centuries would come to dominate the Middle East, southeastern Europe, and North Africa. Thus the rise of the Ottomans was one major effect the Black Death had on the history of the region.

The Black Death and the Rise of the Ottomans

If the Black Death in the Middle East initiated no religious, social, political, or scholarly makeover of the kind it did in Europe, its

historic effect was no less dramatic. Along with a set of subsequent epidemics, the Black Death played a key role in the rise of the Ottoman Empire. The Ottomans emerged from one of the principalities (*beyliks*) in western Anatolia in the late-thirteenth century. Within a century and a half, they crushed the Byzantine Empire, absorbed most of the neighboring principalities in Anatolia, conquered vast lands in southeastern Europe, and came to rule over two continents from a center they established in the former capital of Eastern Christianity, Constantinople. The Ottomans had seized large territories from the Byzantines already before the mid-fourteenth century, including Bursa, their first capital (1326); Nicaea (İznik, 1331); and Nicomedia (İzmit, 1337). But most conquests of strategic importance to them took place after the Black Death. These included Gallipoli (Gelibolu) in 1354; Edirne, which became their second capital, in 1365; Thrace and Macedonia in the 1370s and 1380s; extensive parts of the Balkans, including Sofia in 1382, Albania in 1385, and most of Serbia by 1389; and Salonica in 1387, which the Ottomans would lose and then regain in 1430.[82]

The Black Death was destructive for the Byzantine state. It arrived in Anatolia in late 1346 and reached Constantinople in 1347. As in Europe, the Black Death eliminated a significant proportion of the population in the capital and other towns and aggravated the already poor economic and agrarian conditions in cities and the countryside.[83] The Black Death devastated Byzantium especially because it occurred after two civil wars over succession, in the 1320s and 1340s, which left the state stripped of cash and vulnerable to Venetian, Genoese, and Ottoman intervention and invasions.[84] From 1346 to 1352, the epidemic ravaged Byzantine cities, depleting their populations and leaving few soldiers to defend them. In 1352, facing threats from Serbia and Bulgaria and a civil war, Emperor John Cantacuzenus concluded a pact with Süleyman, the son of Sultan Orhan; invited the Ottomans to cross the Dardanelles; and gave them a presence in Rumelia. Two years later, the Ottomans would take advantage of this opportunity, when an earthquake that shattered many Byzantine strongholds allowed them to capture the damaged fortress of Gallipoli and advance farther into Byzantine territory. From then on, the Ottomans became major rivals of the Byzantines, whose cities continued to be hit by more natural disasters. By 1453, when Mehmet II conquered Constantinople, the city had barely thirty thousand people and only a few thousand soldiers to defend it.[85]

The Black Death obviously affected the Ottomans, too, but to a much lesser extent. Unlike Byzantium, the Ottoman state comprised

nomadic groups – plundering rather than pastoral – that were constantly on the move.[86] Because plague is carried by rodents, it affects cities and sedentary populations the most, as it requires denser population and human-rat interactions on a large enough scale for an epidemic to break out and run its course. Being constantly on the move, the Ottoman forces were less susceptible to plague and suffered fewer casualties than the Byzantines. Furthermore, plague usually spread from the coasts inland, arriving at a new location via ships carrying rodents. Coastal-maritime states were therefore affected to a greater degree by it, and the Black Death was no exception: The plague ravaged the Turkic principalities along the Aegean and Mediterranean, such as Karaman, Menteşe, Aydın, Saruhan, and Karesi. Although some emirates, such as Karaman and Aydın, lasted into the fifteenth century, the devastating effects of the Black Death no doubt contributed to the eventual incorporation of the Turkish principalities into the Ottoman state.[87]

It goes without saying that the Black Death was not the sole reason for Ottoman success. But it seems that most accounts on the rise of the Ottoman Empire give the epidemic much less than its due attention.[88] Historians usually point to the central role religious factors played in Ottoman-Byzantine struggles and the Ottoman triumph. Since the 1920s, historians have been debating the nature of the religion the Ottomans introduced and its effect on their success.[89] The issue has been amply discussed in the literature; hence I need only review the main arguments here. The theory most Western historians of the Ottomans had accepted until recently was a modified version of the ideas of Paul Wittek from 1937. In what came to be known as the "Gazi thesis," Wittek argued that the early Ottomans were bands of genealogically unrelated Muslim warriors (*gazis*), influenced by the Seljuq tradition of raiding into non-Muslim territory and bound by a common desire to fight Christian infidels.[90] The 1994 authoritative *Economic and Social History of the Ottoman Empire* still offered the Gazi thesis, albeit in a modified form, as the main explanation for Ottoman expansion in the fourteenth century. Halil İnalcık, the book's editor and author of the section on early Ottoman history, also suggested that the *gazi* frontier character of the early Ottomans shaped the history of their empire in the centuries to come.[91] Cemal Kafadar has also accepted the thesis in essence, noting that the *gazi* ethos was one of several elements that made up Ottoman identity, which emerged from the inclusive nature of Christianity and Islam in western Anatolia.[92] Today, historians still use the Gazi thesis, with some modifications that allow non-Muslims to be represented in the Ottoman narrative, to explain the rise of the Ottomans.[93]

Several historians have ventured to challenge the Gazi thesis. Colin Imber has argued that the sources historians used to construct early Ottoman history, having been written no earlier than the fifteenth century "are without value." As "all the 'facts' about Osman Gazi and his followers are actually fiction," one should discard the assumptions that the Ottomans were nomads, *gazis*, peasants, or any combination of these. Instead, Imber has raised the possibility that the early Ottomans raided neighboring territories for the purpose of plundering and obtaining slaves, and that *gazi* (or *ghazi* in Arabic) was synonymous with *akıncı*, "raider" in Turkish.[94] Heath Lowry has taken Imber's argument further and suggested that the purpose of Ottoman expansion was pillaging rather than converting the enemy to Islam. That Islam was not the banner uniting all early Ottomans is clear from the great number of non-Muslims who joined the Ottoman forces, including commanders who led Ottoman armies into conquests in Thrace and the Balkans. Early Ottoman society, Lowry has suggested, was one in which Christians and Muslims coexisted, a frontier community where any person interested in the growth of the state had a place.[95] The early Ottoman state was a pluralistic society, one that integrated Muslim and non-Muslim values and allowed the expression of many identities. This is reflected in the numerous public structures from that period that served people of all religions, including dervish lodges (*tekkes* or *zaviyes*), public baths, and shrines (see Figure 1.2). [96]

Figure 1.2. The Gazi Evrenos *'imaret* in Komotini, built c. 1360–80. *'Imarets* such as this served as a venue for Christian-Muslim encounters in the Ottoman Empire from the fourteenth century on. Adapted from a photo by Georgios Giannopoulos, 2011. Reproduced

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Given available historical and archaeological evidence, Lowry and Imber's theses offer a better explanation for the rise of the empire; however, they, like other scholars, pay little attention to the role of plague in early Ottoman successes. One scholar has emphasized the connection between the Black Death and the rise of the Ottomans. On the basis of his study of the Mongol-Turkic Golden Horde and the effects of the Black Death on it, Uli Schamiloğlu has proposed some possible consequences of the plague for Anatolia. These included two linguistic changes occurring in the second half of the fourteenth century: one as Turkish replaced Arabic and Persian as the languages of scholarship and the other as Turkish itself became orthographically closer to Persian rather than to Central Asian Turkic dialects used only by a limited group of scholars. Schamiloğlu equates this process with the shift from Latin to the vernacular in European scholarship.[97] Such changes, combined with the devastation the Black Death had wrought among the sedentary Byzantines, provided for the rise of a new political-cultural entity, one that had its roots in several traditions: Islamic, Central Asian Turkic, and Byzantine. The Black Death as a factor shaping the region's history does not, therefore, invalidate the ideas of Lowry and Imber; rather, it supports and complements them. It is only through this pluralistic understanding of the early Ottoman state that we are able to explain subsequent developments – political, social, and in response to disasters – in later periods.

Pluralism and Social Welfare: The Apogee of Ottoman Power

Religious and cultural pluralism benefited the state in its early stages. It left little room for internal dissent and helped create an empire that attracted followers from Byzantium and other Anatolian *beyliks*. During the first half of the fourteenth century, when Osman and his son Orhan conquered Byzantine towns, members of the Byzantine army defected to the Ottoman side. With time, many converted to Islam, but this apparently indicated their desire to assume the identity of the group more than an Ottoman bidding to spread Islam. This was best illustrated after the 1326 conquest of Bursa. The Byzantine minister Saroz negotiated surrender terms with Köse Mihal, a Greek convert to Islam, who commanded the Ottoman forces that captured the city. When negotiations ended, Saroz decided to become an Ottoman instead of returning to Constantinople. He explained his act

to Orhan, “Your state is growing bigger and bigger every day. Ours has turned.” Saroz, then, switched sides because he wished to join the winning party. One may imagine that such was also the reason for many other former Byzantine subjects who moved to side with the Ottomans. Unlike in Byzantium, where life routine was marred by wars and economic instability, the Ottomans provided stability, prospects for increasing one’s wealth, and a reasonable tax burden.[98] This process, of Ottoman conquerors collecting followers along the way, was accelerated by the horrors of the Black Death.

During the first two centuries, the Ottomans were expanding primarily in Europe. Wherever they established their rule they instituted relative religious tolerance and integration of traditions. They may not have seen themselves as standard bearers of Islam at first, but the populations they conquered – previously under Byzantine, Bulgarian, Serbian, or Hungarian rule – probably saw them as such, as did their enemies in Europe.[99] Conversions to Islam along with forced migrations took place in the Balkans, as the Ottomans sought to repopulate their capital. They also treated the newly conquered areas as a reservoir of future soldiers, recruited young Christian boys through the *devşirme* system, and shipped them to Istanbul, where they were raised as Muslims and trained. Nonetheless, the character of the Ottoman state did not change as it grew and incorporated more areas, at least not before the sixteenth century. Mehmet II, who conquered Constantinople in 1453 and put an end to the Byzantine Empire, was fascinated by Greek and Christian culture. He studied foreign languages, including Greek and Latin; had books in those languages in his personal library; and, according to some testimonies, worshiped Christian relics.[100] Mehmet’s conversion of the Aya Sofia to a mosque was not merely an expression of Islamic devosion, but also of Ottoman imperial power. It suggests that in his time, practicing one religion did not preclude following the principles of another.

More important for our discussion was Sultan Selim I’s conquest of the Arab lands in 1516–17 and the Ottomanization of Arab society. After Ottoman victories over the Mamluks in Marj Dabiq (near Aleppo), in August 1516, and in Ridaniyya (north of Cairo), in January 1517, Mamluk rule over Egypt, Syria, and the holy cities of Mecca and Medina ended and the Ottoman state became an empire ruling over three continents. Until then, the majority of Ottoman subjects had been Christian; after 1517, most were Muslim. Under Selim’s son, Süleyman I, and his grandson, Selim II (r. 1566–74), the Ottomans conquered Baghdad (1534) and spread into North Africa and the Maghreb mostly through indirect governance. It makes little

sense to view the Ottoman destruction of the Mamluks as a mark of Ottoman desire to lead the Muslim world, let alone as part of an Ottoman holy war against infidels. The expansionist character of the Ottoman state, based as it was on raids for plunder (*akın*), and diplomatic mishaps between the Mamluk sultan Qanṣuh al-Ghawri and Selim I were more likely the causes of the Ottoman invasion of Syria in the first place. Historians, however, argue that once the conquest of Arab lands was completed, the empire adopted a more orthodox form of Islam and abandoned much of the pragmatism that had typified it during its early centuries as a European empire governing mostly Christians.[101] This is a plausible postulation: Not only did the area under its control more than double after the 1516–17 conquests; the empire also began to govern millions of new subjects, who practiced Islam differently and did not share many of the cultural and linguistic attributes of their new rulers.[102] When the Ottomans incorporated the Arab lands into their empire, they were still a pluralistic, tolerant, and multicultural empire. The conquest not only changed the Ottomans; it generated a sense of renewal in the Arab societies of the Middle East as well.

As in earlier conquests, the state sought to assert its authority soon after the conquest of Syria and Egypt. This was nowhere more apparent than in Ottoman architecture. Within a few years, the Ottomans erected public structures such as mosques and fountains in most of the cities they had captured.[103] The new structures in Syrian and Egyptian cities served a dual purpose: They asserted authority and patronage; and they demonstrated, through new architectural styles, Ottoman pluralism and ability to engage in a dialogue of cultures and traditions with the conquered people. Ottoman mosques in the Arab world incorporated elements of Seljuq, Byzantine, Central Asian, and pre-Ottoman Islamic architecture to create a unique blend, one that introduced the new masters to the area, but also retained enough of the local Mamluk architectural features. In so doing, the Ottomans maintained practices from their fourteenth century days, when they had converted Byzantine churches into mosques and built structures that combined diverse styles of the region's architecture.[104] Through founding new institutions, the Ottomans introduced themselves to the conquered populations and invited their subjects to be part of a new cultural milieu.[105] The Ottoman policy of integrating the Muslim populations after 1516–17 was the same as that which had led them to embrace Christian-Byzantine culture in the fourteenth century, and to absorb Jewish exiles from Spain in the last decade of the fifteenth century.

In the empire's efforts to integrate newly conquered populations,

Ottoman charity played an instrumental role. When the Ottomans were advancing into Byzantine territory in the fourteenth century, one way to introduce the overwhelmingly Christian population to the new order was through the building of soup kitchens, or *'imaret*s, in almost every town they conquered. *'Imaret*s were charitable institutions operating according to Muslim norms, but they were often set up in areas where no Muslims resided; even in the second half of the fifteenth century, some *'imaret*s served mostly Christians. The Christian clients of these *'imaret*s were already involved with the state through their participation in Ottoman campaigns. When they were not on campaign, the *'imaret*s provided them with food.[106] Lowry believes the *'imaret*s and dervish lodges served as melting pots for the Ottomans and the Christian populations they came to govern – for many it was within these institutions that they first encountered members of the other group. *'Imaret*s therefore offered a fertile ground for conversions to Islam.[107]

Islam was part of the culture the Ottomans sought to introduce, and charitable endeavors served to promote assimilation into their state. The *'imaret* and the *tekke* were something of a novelty in Syria and Egypt, being endowed as *waqf* by a sultan or by other high-ranking Ottoman officials. This was a change from Mamluk practice, in which the founders of *waqf*s had not been members of the Mamluk elite and their foundations had provided for only a small share of food distributions; the rest had been private initiatives. Only in times of shortage or famine would the rulers intervene.[108] The Ottomans let food- and bread-distributing institutions from the Mamluk period – schools, hospitals, public kitchens – deteriorate, thus creating a need for a new system of charity. In the decades after their arrival they introduced the *'imaret* and *tekke*, agencies that played a major role in the Ottomanization of Arab cities.[109] Soon afterward, by the mid-sixteenth century at the latest, grand charitable institutions began to be erected, complexes that included a mosque, a *tekke*, an *'imaret*, a school, and a hospital. By the end of the century, the Ottomans had transformed former Mamluk cities into Ottoman ones, where the great endowments the sultans had dedicated served as testimony to their power and generosity. They reshaped the ways charity was imparted in the Arab lands by making it more institutionalized.

Ottoman charity practices introduced certain novelties, such as periodic decrees that defined eligibility for charity. The principle of the "deserving poor" was not in itself new: Centuries before the Ottomans, Muslim communities, institutions, and individuals had ways to ensure that only those who deserved alms received them,[110] but the state did not usually intervene in such matters. From the

sixteenth century onward, however, sultans issued orders to distinguish between able-bodied poor, who should work and not rely on charity, and those unable to work. Thus, in Istanbul two decrees from 1568 and 1577 clarified the need to support only the poor who could not sustain themselves through employment. In the Haseki Sultan endowed *'imaret* in Jerusalem, the *qadi* – a state agent – was to determine who could eat there.[111]

Such practices, however, were meant to ensure that those in greater need received help before those who could do without it. Unlike in Europe, they were not intended to resolve poverty. Furthermore, Ottoman charitable institutions were not quite state initiatives: Most grand mosques, soup kitchens, and hospitals were started by a generous donation from a sultan, a member of his family, a grand vizier, or a provincial governor, but those who contributed did so as private individuals, not as state agents.[112] Imperial and provincial agents after the mid-eighteenth century tried to regulate charity more closely, yet no systematic Ottoman approach to the problem of poverty had developed before the second half of the nineteenth century, and no plans to combat beggary were introduced.[113]

The same was true of public health issues. The Ottomans were clearly more enterprising than their predecessors in improving cleanliness in cities, without necessarily making the connection between hygiene and disease. Up to the eighteenth century, such measures were taken mostly in Istanbul and its environs. The Ottomans launched ad hoc cleaning operations in parts of Istanbul soon after the 1453 conquest, and by the early sixteenth century they were regularly employing street cleaners, who collected garbage in receptacles and disposed of it in a central location. We do not know whether they took similar care of other cities, but it would make sense to assume that some sort of city cleaning system was in operation, initiated by the state, local governors, or private individuals. On the whole, however, the level of street cleaning before the mid-nineteenth century was apparently not very high; according to foreign observers, it was not close to European standards.[114] We also find sporadic cases of quarantine of travelers arriving from places suspected to have plague as early as the sixteenth century, and of foreigners arriving in Istanbul in the late-seventeenth century being detained for seven days before entering the city. In the eighteenth century, in various points along the Dardanelles, the Ottomans built houses known as *tahaffuzhane*, in which ships and their crews were isolated for many days before proceeding to Istanbul. Little is known about them and there is no evidence they were used elsewhere in the empire.[115]

The arrival of the Ottomans in the Arab lands, then, did not

immediately change the outlook of the empire. But during the sixteenth century the Ottomans gradually shifted their orientation and positioned themselves as a world and an Islamic empire. It was also the era where the state laid the bureaucratic and operational foundations for the ways it would handle future disasters. The Ottoman evolution from a principality in western Anatolia and their long interaction with Byzantium seem to have made them open to new ideas by the early sixteenth century. This can explain the increased number of treatises and fatwas on plagues from the sixteenth century that embraced the concept of contagion and condoned flight[116] and the strict control imposed on intramural burials in Istanbul, which from the last third of that century required special permission.[117] During the sixteenth century the state employed a reactive form of governing, issuing regulations from time to time but mostly refraining from intervening in matters until they were formally called to its attention. This may have resulted from the integration into the Ottoman military, bureaucracy, and religious establishment of many who had lived under the Mamluks in lands with a Muslim majority. As Islam began to play a key role in the empire, the state assimilated principles of prior Muslim rulers. Most prominent among these were the parallel distinctions between public and private, rulers and subjects.

The sixteenth century saw religious and social turmoil in Europe, created by the diffusion of novel ideas, the rise of new political structures, and more efficient prevention and containment of poverty and disease that had been developing since the Black Death. In the Middle East, change was somewhat less dramatic. The Ottoman Empire in the sixteenth century experienced the crystallization of Ottoman bureaucracy in general, and the adoption of guiding principles for dealing with disasters, in particular. The language of Ottoman bureaucracy became inherently Islamic. And the practices reflected within it, whereby the state acted only when called upon (or when its prestige was on the line), shaped many of the empire's principles of disaster relief for the following two centuries. The non-Muslim influences, however, did not disappear completely. The years after the conquest of Syria and Egypt witnessed a process of diffusion of ideas in both directions. As the empire was solidifying its presence in the Arab territories in the sixteenth century, it underwent change while also transforming the society under its rule. And if the sixteenth century was an era of expansion, building, and establishing rule, the next two centuries would be a time of consolidation and implementation. In the following chapters, we will see what responses to natural disasters can teach us about the empire and its subjects in the seventeenth and eighteenth centuries.

1 Giovanni Boccaccio, *The Decameron* (Harmondsworth, Middlesex, UK: Penguin Books, 1972), 50. For early advances of the Black Death in Italy, see Benedictow, *Black Death*, 91–5.

2 For the problematic of determining the death toll, see Benedictow, *Black Death*, 380–4.

3 Beyond Dols and Borsch's books mentioned previously, a few works have discussed the effects of the Black Death on Islamic society: Adam Sabra, *Poverty and Charity in Medieval Islam: Mamluk Egypt, 1250–1517* (New York: Cambridge University Press, 2000), 121–68; William Tucker, "Natural disasters and the peasantry in Mamlūk Egypt," *JESHO* 24 (1981), 2:215–24; David Ayalon, "Regarding population estimates in the countries of medieval Islam," *JESHO* 28 (1985), 1:1–19; and Avner Gil'adi, "'The child was small ... not so the grief for him': Sources, structure, and content of al-Sakhawi's consolation treatise for bereaved parents," *Poetics Today* 14 (1993), 2:367–86.

4 For reactions to disasters in Christendom prior to the Black Death, see the Introduction, "Natural Disasters in Human Record."

5 The situation is somewhat better for Egypt in the Mamluk period, as the studies of Dols, Borsch, and Sabra demonstrate.

6 Lawrence Conrad, "The plague in the early medieval Near East" (Ph.D. Dissertation, Princeton University, 1981), 170–2 (quotation of al-Bukhari from 172). Other Muslim authors who quote this story are Hibat Allah ibn al-Ḥasan al-Lalaka'i, *Sharḥ uṣul i'tiqad ahl al-sunna wa-l-jama'a* (Riyadh: Dar Ṭiba, 1994), 4:655 and 'Ali ibn al-Ḥasan ibn 'Asakir, *Ta'rikh madinat dimashq* (Beirut: Dar al-Fikr, 1995), 2:170. For the development of this tradition in later generations, see Josef Van Ess, *Der Fehltritt des Gelehrten: Die "Pest von Emmaus" und ihre theologischen Nachspiele* (Heidelberg: Universitätsverlag C. Winter, 2001), 241–6.

7 Stearns, *Infectious Ideas*, 69–72.

8 Ibid., 74–6.

9 Ibid., 70–1.

10 Ibid., 85–9. Stearns admits in a footnote that the period after Ibn Ḥajar lies outside the scope of his book, even though he is certain that a future study would point to the same conclusion (n. 85, p. 86).

11 For more on al-Suyuṭi, see E. Geoffroy, "Al-Suyūṭī," *EI2*, 9:913–16.

12 This text has been published in numerous editions. I have used Jalal al-Din al-Suyuṭi, *Ma rawahu al-waʿun fi akhbar al-ṭaʿun* (Damascus: Dar al-Qalam, 1997). Al-Suyuṭi explains the source of his work on 137.

13 Ibid., 152–4.

14 Ibid., 160.

15 This is seen in his discussion of the quakes the Prophet and the second caliph, ʻUmar, had experienced; Jalal al-Din al-Suyuṭi, *Kashf al-ṣalṣala ʻan waṣf al-zalzala* (Beirut: ʻAlam al-Kutub, 1987), 146–7.

16 Ibid., 146, 148, 151. A solar (*kusuf*) and a lunar *(khusuf*) eclipse were believed to be preliminary signs for a natural disaster or judgment day (Kamil Yaşaroğlu, "Küsûf," *TDVİA*, 26:576–7). For

similar recommendations for times of plague, see al-Suyuṭi, *Ma rawahu*, 167–77.

17 al-Suyuṭi, *Kashf*, 154.

18 Ibid., 154–5.

19 Another explanation for the difference between plagues and earthquakes may lie in the simple fact that often an earthquake left one no choice but to move elsewhere, as his or her house was destroyed or burned down in subsequent fires.

20 Tucker, "Natural disasters," 220–2.

21 Dols, *Black Death*, 62, 169–75.

22 Ibid., 35–9; Benedictow, *Black Death*, 44–54. Benedictow rejects the explanation that the plague of the mid-fourteenth century originated in China.

23 William McNeill, *Plagues and Peoples* (New York: Anchor Press, 1976), 141–3.

24 Dols, *Black Death*, 36–7; Philip Ziegler, *The Black Death* (New York: Harper & Row, 1971), 13–29.

25 For the different estimations, see Benedictow, *Black Death*, 380–4; Robert Gottfried, *The Black Death: Natural and Human Disaster in Medieval Europe* (New York: Free Press, 1983), 76; David Herlihy, *The*

Black Death and the Transformation of the West (Cambridge, MA: Harvard University Press, 1997), 18; and Samuel Cohn, *The Black Death Transformed: Disease and Culture in Early Renaissance Europe* (London: Arnold, 2002), 2.

26 William Jordan, *Europe in the High Middle Ages* (London: Penguin Books, 2001), 296–7.

27 Dols, *Black Death*, 175–85.

28 Borsch, *Black Death*, 40–54, 82–3, 86–8; Dols, *Black Death*, 158–69.

29 Jordan, *High Middle Ages*, 298–9.

30 Borsch, *Black Death*, 65–6.

31 David Nicholas, *The Transformation of Europe, 1300–1600* (London: Arnold, 1999), 94–6.

32 Jordan, *High Middle Ages*, 297; John Hatcher, "England in the aftermath of the Black Death," *Past and Present* 144 (1994), 3–35; Colin Platt, *King Death: The Black Death and Its Aftermath in Late-Medieval England* (London: UCL Press, 1996), 177–92; Ziegler, *Black Death*, 232–51; Klaus Bergdolt, *Die Pest: Geschichte des Schwarzen Todes* (Munich: C. H. Beck, 2006), 50–7; Klaus Bergdolt, *Der Schwarze Tod in Europa: Die grosse Pest und das Ende des Mittelalters* (Munich: C. H. Beck, 1994), 191–207. See also the many short articles that discuss how the Black Death changed Europe in William Bowsky, ed., *The Black Death: A Turning Point in History?* (Huntington, NY: R. E. Krieger, 1978).

33 And not, as has sometimes been argued, one society's exploitation of another. See David Landes, "Why Europe and the West? Why not China?" *Journal of Economic Perspectives* 20 (2006), 2:3–22.

34 Jordan, *High Middle Ages*, 297–8.

35 Ibid., 314–22.

36 For more on John Wycliffe, see Stephen Lahey, *John Wyclif* (Oxford: Oxford University Press, 2009); for John Hus, see Craig Atwood, *The Theology of the Czech Brethren from Hus to Comenius* (University Park: Pennsylvania State University Press, 2009), 49–75.

37 In some places, as in Venice, the city's takeover of charitable services was preceded by the formation of religious societies (*scoula*), formed among the laity as early as the thirteenth century. Such societies became less exclusive and had fewer ties to the church in the fourteenth and fifteenth centuries. They offered charitable support to the public and often cooperated with the city in enforcing poor laws and running hospitals. See Brian Pullan, *Rich and Poor in Renaissance Venice: The Social Institutions of a Catholic State, to 1620* (Cambridge, MA: Harvard University Press, 1971), 33–83.

38 Pullan, *Rich and Poor*; Sandra Cavallo, *Charity and Power in Early Modern Italy: Benefactors and Their Motives in Turin, 1541–1789* (Cambridge: Cambridge University Press, 1995); "Poor relief, humanism, and heresy," in Natalie Davis, *Society and Culture in Early Modern France* (Stanford, CA: Stanford University Press, 1975), 17–64.

39 Pullan, *Rich and Poor*, 197–286; Cavallo, *Charity and Power*, 12–38; Davis, "Poor relief," 17–64.

40 Susan Stuard, *A State of Deference: Ragusa/Dubrovnik in the Medieval*

Centuries (Philadelphia: University of Pennsylvania Press, 1992), 47–8; Ann Carmichael, *Plague and the Poor in Renaissance Florence* (Cambridge: Cambridge University Press, 1986), 108–16; Giuseppe Dodero, *I Lazzaretti: Epidemie e quarantene in Sardegna* (Cagliari: Aipsa, 2001), 51.

41 See, for example, Charles Creighton, *History of Epidemics in Britain* (New York: Barnes & Noble, 1965), 312–20.

42 Craig Koslofsky, *The Reformation of the Dead: Death and Ritual in Early Modern Germany, 1450–1700* (Basingstoke, UK: Macmillan, 2000), 40–6.

43 For regulations in Paris, see Dominique Laporte, *History of Shit* (Cambridge, MA: MIT Press, 2000), 3–7. For cities in Germany, Hösel, *Unser Abfall*, 71–110.

44 Yaron Ayalon, "Ottoman urban privacy in light of disaster recovery," *IJMES* 43 (2011), 3:513–28, and especially 522–3.

45 Leo Hollis, *London Rising: The Men Who Made Modern London* (New York: Walker & Co., 2008), 135–56; one author considered the Great Fire to be a watershed for privacy, which was gradually redefined in subsequent decades (Christoph Heyl, *A Passion for Privacy: Untersuchungen zur Genese der bürgerlichen Privatsphäre in London, 1660–1800* (Munich: Oldenbourg, 2004), 213–304).

46 Russell Dynes, "The Lisbon earthquake of 1755: The first modern disaster," in Theodore Braun and John Radner, eds., *The Lisbon Earthquake of 1755: Representations and Reactions* (Oxford: Voltaire Foundation, 2005), 34–49.

47 Jean Paul Poirier, *Le tremblement de terre de Lisbonne: 1755* (Paris:

O. Jacob, 2005), 93–112. A similar pattern is seen in other major calamities of the time, such as the plague of Marseille of 1720 (Charles Carrière et al., *Marseille, ville morte: La peste de 1720* (Marseille: M. Garçon, 1968), 105–26).

48 Ladurie, *Histoire*, 31–89.

49 Jordan, *Great Famine*, 1–23.

50 Ziegler, *Black Death*, 274–6.

51 Jean Delumeau, *Le péché et la peur: La culpabilisation en Occident (XIIIe – XVIIIe siècles)* (Paris: Fayard, 1983), 108–17.

52 Sharon Strocchia, *Death and Ritual in Renaissance Florence* (Baltimore: Johns Hopkins University Press, 1992), 55–104, quote from 55.

53 Ziegler, *Black Death*, 259–70, quote from 270.

54 For example, see Renee Watkins, "Petrarch and the Black Death: From fear to monuments," *Studies in the Renaissance* 19 (1972), 196–223.

55 Hans Baron, *The Crisis of the Early Italian Renaissance* (Princeton, NJ: Princeton University Press, 1966), 3–7.

56 The classic thesis that sees printing as the precursor of the major developments in European history is Elizabeth Eisenstein, *The Printing*

Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe (Cambridge: Cambridge University Press, 1979), in 2 volumes. For an approach attributing a more modest role to it, see Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago: University of Chicago Press, 1998). Assessing the historic role of printing is a matter of ongoing controversy among scholars; see Anthony Grafton, "How revolutionary was the print revolution?" Elizabeth Eisenstein, "An unacknowledged revolution revisited," Adrian Johns, "How to acknowledge a revolution," and Elizabeth Eisensten, "Reply," *AHR* 107 (2002), 1:84–128.

57 Lloyd Moote and Dorothy Moote, *The Great Plague: The Story of London's Most Deadly Year* (Baltimore: Johns Hopkins University Press, 2004), 253–4.

58 Leo Hollis, *The Phoenix: St. Paul's Cathedral and the Men Who Made Modern London* (London: Weidenfeld & Nicolson, 2008), 229–30.

59 The earthquake was even reported to the Ottoman sultan Osman III (r. 1754–7) on 17 January 1756 – the only pre–nineteenth century European natural disaster I found evidence for in the Ottoman archives (BOA, C. HR., 3215).

60 For a discussion of Voltaire's poem, its meaning, and responses to it in his home country of Switzerland, see Monika Gisler, "Optimism and theodicy: Perceptions of the Lisbon earthquake in protestant Switzerland," in Braun and Radner, eds., *Lisbon Earthquake*, 247–64. For a discussion of poetic, literary, and theatrical works inspired by the Lisbon earthquake, see Poirier, *Tremblement*, 135–80.

61 Sabra, *Poverty and Charity*, 138–57.

62 Ibid., Dols, *Black Death*, 326–8.

63 White has found correlation between Little Ice Age weather in Europe and that occurring in the Ottoman Empire in the sixteenth and seventeenth centuries. There is no reason to assume the same global phenomenon, which took place throughout much of the fourteenth century, did not affect the Middle East as well (White, *Climate*, 126–39).

64 R. W. Southern, *Western Society and the Church in the Middle Ages* (London: Penguin Books, 1970), 16–21.

65 Michael Bonner, "The waning of empire, 861–945" and Hugh Kennedy, "The late 'Abbāsid pattern, 945–1050," in Michael Cook, ed., *The New Cambridge History of Islam* (Cambridge: Cambridge University Press, 2011), 1:305–93; Linda Northrup, "The Baḥrī Mamluk Sultanate, 1250–1390," in Carl Petry, ed., *The Cambridge History of Egypt* (Cambridge: Cambridge University Press, 1998), 1:255–6.

66 For Islamic traditions on poverty and charity, see Amy Singer, *Charity in Islamic Societies* (Cambridge: Cambridge University Press, 2008), 30–66. For moral economy, see Boaz Shoshan, *Popular Culture in Medieval Cairo* (New York: Cambridge University Press, 1993), 65–6.

67 Singer, *Charity*, 114–45 and especially 143.

68 Amalia Levanoni, "The Mamlūks in Egypt and Syria: The Turkish Mamlūk sultanate (648–784/1250–1832) and the Circassian Mamlūk sultanate (784–923/1382–1517)" in *New Cambridge History of Islam*, 2:237–79.

69 Benjamin Hary, *Multiglossia in Judeo-Arabic* (Leiden: Brill, 1992), 35–47.

70 For more on this problematic issue, see Lutz Berger, "Zur Problematik der späten Einführung des Buchdrucks in der islamischen Welt," in Ulrich Marzolph, ed., *Das gedruckte Buch im Vorderen Orient* (Dortmund: Verlag für Orientkunde, 2002), 15–28; Dana Sajdi, "Print and its discontents: A case for pre-print journalism and other sundry print matters," *Translator* 15 (2009), 1:105–38.

71 Max Weber, *The City* (Glencoe, IL: Free Press, 1958), 81–2.

72 Aḥmad 'Isa, *Ta'rikh al-bimaristanat fi al-Islam* (Damascus: Jam'iyat al-Tamaddun al-Islami, 1939), 203.

73 Ibid., 210–11.

74 A later example that still may be characteristic of the role hospitals played in Muslim society is that of 'Umar Efendi, a wealthy Damascene and expert in Arabic and Turkish calligraphy who began selling counterfeit *firmans* bearing a "sultanic" *buyuruldu* (the sultan's signature on documents, literally meaning "it was thus ordered"). The pasha ordered his arm cut off, after which he was put bleeding on a donkey and taken to the hospital. He stayed there for three days until he died. (Muḥammad ibn Kannan, *Yawmiyat shamiyya* (Damascus: Dar al-Ṭabba', 1994), 195).

75 For example, see Pullan, *Rich and Poor*, 202–7. As medical facilities, however, hospitals grew and expanded in the Ottoman period and became bureaucratized institutions employing physicians and other staff who were on the government's payroll; Miri Shefer Mossensohn, *Ottoman Medicine: Healing and Medical Institutions, 1500–1700* (Albany: SUNY Press, 2009).

76 Sabra, *Poverty and Charity*, 146–8, 150–5. Contemporary sources mention no other measures taken by it.

77 Mikhail, *Nature and Empire*, 232–3.

78 Ibid., 214–15.

79 See the discussion in ibid., 52–8. Mikhail has determined that "precedent was law in Ottoman Egypt" (53).

80 Printing would have threatened established practices of copying texts by hand and affected the standing of scribes and the written word. It would also have increased literacy and reduced the status and prestige of the tiny group of intellectuals who read, wrote, and participated in scholarly discourse. And it would have transformed how people read, from in-depth study of few texts to cursory reading of many. Yaron Ayalon, "Richelieu in Arabic: The Catholic printed message to the Orient in the seventeenth century," *Islam and Christian–Muslim Relations* 19 (2008), 2:159–61.

81 For an example of precedent in plague treatises, see Marʿi bin Yusuf al-Ḥanbali, "Taḥqiq al-ẓunun bi-ikhbar al-ṭaʿun," Ms. Esad Efendi 3567-1 in SL, 22–47; for precedent in the ruling of jurists, see Colin Imber, *Ebu's-Suʿud: The Islamic Legal Tradition* (Stanford, CA: Stanford University Press, 2009), 34–8; for court cases, see Marcus, *Eve of Modernity*, 104–5.

82 For more on early Ottoman conquests, see Rudi Paul Lindner, "Anatolia, 1300–1451," and Machiel Kiel, "The incorporation of the Balkans into the Ottoman Empire," in Kate Fleet, ed., *The Cambridge History of Turkey*. Vol. 1. *Byzantium to Turkey, 1071–1453* (Cambridge: Cambridge University Press, 2009), 102–91.

83 Gottfried, *Black Death*, 37–8.

84 Warren Treadgold, *A History of the Byzantine State and Society* (Stanford, CA: Stanford University Press, 1997), 772–3; Angeliki Laiou, ed., *The Economic History of Byzantium: From the Seventh through the Fifteenth Century* (Washington, DC: Dumbarton Oaks, 2002), 26.

85 Uli Schamiloglu, "The rise of the Ottoman Empire: The Black Death in medieval Anatolia and its impact on Turkish civilization," in Neguin Yavari et al., eds., *Views from the Edge: Essays in Honor of Richard W. Bulliet* (New York: Columbia University Press, 2004), 270–2. For details on the 1354 Gallipoli earthquake, see Ambraseys, *Earthquakes in the Mediterranean*, 372–5. Earthquakes hit Byzantine territories also in 1362, 1366, 1374, 1383, 1389, 1402, 1407, 1415, 1418, and 1419 (ibid., 376–88).

86 Reşat Kasaba, *A Moveable Empire: Ottoman Nomads, Migrants, and Refugees* (Seattle: University of Washington Press, 2009), 15–18.

87 Schamiloglu, "Rise of the Ottoman Empire," 271; Feridun Emecen, "Anatolian Emirates," in Gábor Ágoston and Bruce Masters, eds., *Encyclopedia of the Ottoman Empire* (New York: Facts On File, 2009), 40–2.

88 Carter Findley, *The Turks in World History* (Oxford: Oxford University Press, 2005), 73. The Black Death is mentioned only in passing in the *Cambridge History of Turkey* (Kiel, "Ottoman expansion," 145). Other accounts of early Ottoman history that do not mention the Black Death are (pages refer to relevant time frame where the Black Death should have appeared): Halil İnalcık, *An Economic and Social History of the Ottoman Empire.* Vol. 1. *1300–1600* (Cambridge: Cambridge University Press, 1997), 15–6; Finkel, *Osman's Dream*, 14–21; and Ágoston and Masters, eds., *Encyclopedia*, 110.

89 For a more detailed overview of this scholarly question, see Heath Lowry, *The Nature of the Early Ottoman State* (Albany, NY: SUNY Press, 2003), 5–13.

90 Paul Wittek, *The Rise of the Ottoman Empire* (London: Royal Asiatic Society, 1938), 14, 20–1, 50–1.

91 İnalcık, *Economic and Social,* vol. 1, 11.

92 Cemal Kafadar, *Between Two Worlds: The Construction of the Ottoman State* (Berkeley: University of California Press, 1995).

93 See, for example, Giancarlo Casale, *The Ottoman Age of Exploration* (Oxford: Oxford University Press, 2010), 29.

94 Colin Imber, "The legend of Osman Gazi," in Colin Imber, ed., *Studies in Ottoman History and Law* (Istanbul: Isis Press, 1996), 323–31, quotations from 329.

95 Lowry, *Nature*, 66–7, 93.

96 Heath Lowry, *The Shaping of the Ottoman Balkans, 1350–1550: The Conquest, Settlement and Infrastructural Development of Northern Greece* (Istanbul: Bahçeşehir University, 2008), 16–64, and especially 35–9.

97 Schamiloglu, "Rise of the Ottoman Empire," 268–9.

98 Lowry, *Nature*, 56–7, quotation on 57, taken from Aşıkpaşazade's description of the Ottoman conquest of Bursa.

99 See, for example, Aeneas Sylvius and Florence Gragg, "The commentaries of Pius II," *Smith College Studies in History* 22 (1936–7), 1–2:68–85; books II–III, 25 (1939–40), 1–4:115–21, 195–9, 212–19.

100 Franz Babinger, *Mehmed the Conqueror and His Time* (Princeton, NJ: Princeton University Press, 1978), 411, 500–1.

101 Heath Lowry, "Pushing the stone uphill: The impact of bubonic plague on Ottoman urban society in the fifteenth and sixteenth centuries," *Journal of Ottoman Studies* 23 (2004), 93–132 and especially 129–30; *Fifteenth Century Ottoman Realities: Christian Peasant Life on the Aegean Island of Limnos* (Istanbul: Eren, 2002), 1–4, 173–6.

102 A testimony on the differences between Mamluks and Ottomans is found in Ibn Iyas's account of the last days of the Mamluks. The contempt he expressed toward the Ottomans was typical of the class of *awlad al-nas* (of which he was a member), Egyptian-born descendants of Mamluks who were not part of the military establishment. See Muḥammad ibn Aḥmad ibn Iyas, *Kitab ta'rikh miṣr al-mashhur bi-bada'i' al-zuhur fi waqa'i' al-duhur* (Cairo: Bulaq, 1893), 3:37–98.

103 Watenpaugh, *Image*, 36–41.

104 Ibid., 42–3; Godfrey Goodwin, *A History of Ottoman Architecture* (New York: Thames & Hudson, 1987), 15–57, 161–96.

105 To date, the best essay on cultural influences spreading along with Ottoman conquests and the role institutions such as dervish lodges played in this cultural integration is Ömer Lutfi Barkan, "Osmanlı İmparatorluğunda bir iskan ve kolonizasyon metodu olarak vakıflar ve temlikler" *Vekıflar Dergisi* 2 (1942), 279–386, and see especially 284–94.

106 Heath Lowry, "Random musings on the origins of Ottoman charity: From Mekece to Bursa and beyond," in Nina Ergin et al., eds., *Feeding People, Feeding Power: Imarets in the Ottoman Empire* (Istanbul: Eren, 2007), 69–79.

107 Lowry, *Shaping*, 82–3, 93–4. For another support for this view, see York Norman, "Imarets, Islamization and urban development in Sarajevo, 1461–1604," in Ergin et al., eds., *Feeding People*, 81–94.

108 Sabra, *Poverty and Charity*, 90–4.

109 Astrid Meier, "For the sake of God alone? Food distribution policies, *takiyya*s and *imaret*s in early Ottoman Damascus," in Ergin et al., eds., *Feeding People*, 121–47.

110 Mark Cohen, *Poverty and Charity in the Jewish Community of Medieval Egypt* (Princeton, NJ: Princeton University Press, 2005), 88–101; Sabra, *Poverty and Charity*, 38–40.

111 Singer, *Constructing Ottoman Beneficence*, 64.

112 Singer, *Charity*, 67–113.

113 Nadir Özbek, *Osmanlı İmparatorluğu'nda sosyal devlet: Siyaset, iktidar ve meşruiyet, 1876–1914* (Istanbul: İletişim, 2002), 47–77.

114 Mehmet Mazak, ed., *Osmanlı'da sokak ve çevre temizliği* (Istanbul: İstaç, 2001), 33–4, 58–67.

115 Andrew Robarts, "A plague on both houses? Population movements and the spread of disease across the Ottoman-Russian Black Sea frontier, 1768–1830s" (Ph.D. Dissertation, Georgetown University, 2010), 204–5.

116 Nükhet Varlık argued for a dramatic change in the approach to epidemics from the sixteenth century (Nükhet Varlık, "Disease and empire: A history of plague epidemics in the early modern Ottoman Empire (1453–1600)" [Ph.D. Dissertation, University of Chicago, 2008]). See more on this in the next chapter.

117 Nicolas Vatin, "L'inhumation intra-muros à Istanbul à l'époque Ottomane," in Gilles Veinstein, ed., *Les Ottomans et la mort: Permanences et mutations* (Leiden: Brill, 1996), 157–63, and especially 162–3.

2 Natural Disasters and the Ottoman State

It was three hours before sunrise on 19 October 1759, and Mikha'il Burayk, a Greek Orthodox resident of Damascus, was sleeping.[1] Suddenly he woke up: The earth was shaking. In the morning, cries were heard all over the city as the damage of the nocturnal earthquake was discovered. Many houses were razed, and parts of the Umayyad and other mosques were damaged. That disaster turned out to be a prelude to another, more violent quake. The next month, late in the evening, a "strong and frightening earthquake" again hit the city. "Walls were torn down, foundations weakened, minarets collapsed, and the Umayyad mosque with its minarets, domes and baths was destroyed." Numerous other buildings were ruined too, among them the Greek Church, and fires broke out in many quarters. In the next few days, city residents left in mass numbers and settled temporarily in gardens surrounding the city, where they set up huts as provisional lodging.[2]

The earthquake and fires Burayk experienced in the closing months of 1759 were just a link in a chain of calamities all over Syria that had begun some two years earlier. A severe winter and a famine started that series of natural disasters, which hit cities in Syria and Palestine from the late 1750s to the second half of the 1760s. The rich documentation these disasters spawned allows us to examine closely the state's reaction to tragedies, on the local and imperial levels; the way it perceived its responsibilities under such circumstances; and what its urban subjects expected from it in alleviating their miseries. Looking at the sequence of catastrophes in the Levant of the 1750s and 1760s, and at many others throughout the empire in the seventeenth and eighteenth centuries, this chapter focuses on state responses to natural disasters. I divide the discussion into two parts, one dealing with epidemics and subsistence crises, the other with earthquakes and fires. As I will show, responses to adverse effects of the first group differed from those of the second, as a result of the nature of the damage caused and the different problems people faced in their wake. Examining the empire's behavior in these exceptional situations reveals much about the priorities that guided it in quiet

times as well. As the last part of this chapter demonstrates, earthquakes and fires created opportunities for city authorities to reshape the urban order. In the eighteenth century, however, the Ottoman state usually refrained from introducing architectural and spatial novelties, preferring instead to reassert the centuries-old social and political order and to restore the boundaries between public and private, state and subjects.

Historians have often portrayed Ottoman society as one in which religion was "the primary organizing principle."[3] Basically, this is a sound depiction. Ottoman politics, led by the sultan and the grand vizier, were always in the hands of Muslims. The judiciary system was likewise Islamic in principle and structural makeup, headed by the *şeyhülislâm*, who oversaw the appointments of judges and issued fatwas on matters of importance. In addition, serving in the army was limited to Muslims, as was, with some variations over time and place, access to services such as public baths, soup kitchens, and hospitals. Non-Muslims were subject to various limitations; in return, they were granted protection, which ensured them ritual freedom.[4]

If the exclusion of non-Muslims from certain positions of power reflected conventions of social division within Ottoman society, one would expect to find the same conventions applied in the manner in which the state responded to natural disasters: The state would, accordingly, give priority to Muslims in food allocation, reassessing of taxes, and rebuilding a ruined city in ways that would primarily benefit Muslims. As I will show, however, other factors shaped Ottoman responses to disasters, which oftentimes had little relation to distinctions between Muslims and non-Muslims.[5] To be sure, Islamic principles were always in the background of state action in the face of calamities, and it was so even when these actions were motivated by practical or pragmatic concerns unrelated to religious matters. Indeed, it is difficult to explain Ottoman state activities in the seventeenth and eighteenth centuries without reference to Islam. Asserting itself as an Islamic empire in the sixteenth century, the Ottoman state devised various ways to emphasize the supremacy of Muslims. Among these were measures such as the inadmissibility of the testimony of a *dhimmi* in court, intentional misspelling of non-Muslim names in official records (from the seventeenth century), and the periodic reintroduction of some of the stipulations of the Pact of 'Umar.[6] Yet such forms of discrimination were far from systematic. They were applied sporadically and did not preclude Christians and Jews' being otherwise well integrated into Ottoman society. The ability to rule in the name of Islam while assimilating members of other religious groups was part of the heritage of tolerance and inclusiveness the

Ottomans had developed in the fourteenth and fifteenth centuries, when still a Muslim minority governing Christians. Islamic identity did not necessitate ongoing and systematic discrimination against non-Muslims. The desire of the state to assert its authority and sense of patronage toward its subjects, at times, did. Stressing the symbols of Islam was the "common language" the Ottomans shared with their subjects. Ruling over vast territories and many ethnic and religious groups, and with only a small minority of Turkish speakers, the Ottomans used the symbols of Islam – in architecture, legal procedures, and the bureaucracy – as the language all subjects, Muslim or not, understood quite well.[7] To be sure, the desire to separate Muslims from non-Muslims and underscore the status of the former over the latter was part of that Islamic discourse the state sought to impose occasionally. As we will see later, highlighting religious boundaries made little sense to Ottoman urbanites in their day-to-day dealings.[8]

Famines and Plagues

Famines and plagues were interrelated.[9] Subsistence crises led to poor health in suffering populations and increased susceptibility to diseases. Extended food shortages would prompt people to search for nourishment in places one would not ordinarily look and to consume products normally considered inedible. Such action undercut sanitation and increased the risk of contracting infectious diseases, including plague. Famine could also be a result of plague. Severe epidemics caused a sharp fall in population, and hence also in agricultural production and commercial activities. The parting of many people from an urban center and its vicinity, due to death or flight, could leave the remaining population destitute and unable to feed itself. Indeed, there were several instances in the history of the empire when famine, initially a result of low rainfall and poor harvests, led to plague, which in turn led to another famine. Such a cyclical appearance of famine and plague occurred in Syria and Palestine between 1757 and 1764.[10]

Because famines and plagues were interrelated and created similar pressure on the urban population, Ottoman responses to both had common characteristics. That the connection between famines and plagues was evident to Ottoman bureaucrats is well reflected in the sources. For the most part, it was local rather than imperial officials who devised and applied measures of prevention and containment: provincial governors (pashas or *walis*), judges (*qadis*), and certain other functionaries in the cities and provinces. They were the first to respond – or refrain from responding – when disaster occurred, and

their assistance came a lot faster than that sent from the capital. Such official agents usually had various local interests to consider, and their priorities, therefore, were not always compatible with those of the sultan. Often their success, even survival, depended on their network of connections with local notables. For these reasons, and because they had fewer resources than the imperial government, responses on the local level took a different form from those dictated from the capital. It would be impractical to lay out the whole range of such local considerations, and I will have to make do with pointing to some general patterns. But it is worth bearing in mind that it was often the particular local circumstances that shaped the choice and implementation of these reactive measures. From Istanbul's perspective, it was usually more convenient to leave handling of disasters to local authorities. Provincial governors knew the affected area better than anyone who could be dispatched from Istanbul, and the cost associated with solutions found on the local level was generally lower. As we will see later, however, when complaints about a governor or his agents were received in the capital, or when important interests were at stake, the focus shifted from the local to the imperial level.

One common form of response to famine or plague by local Ottoman officials was the distribution of food. For instance, during a famine in Aleppo in 1696 the governor ordered the city's bakers to leave some bread outside their shops so the poor could be saved from starvation.[11] In Damascus in 1757, a long famine prompted the pasha to open his grain storehouses and dispense wheat and barley to the people.[12] Sometimes, rather than distribute food, local officials gave out vouchers to peasants and other poor people, which they could use to purchase foodstuff or trade for other commodities, or even money. This happened, for example, in Egypt in the summer of 1694 after a season of low Nile floods and bad harvests.[13]

Providing people with flour or bread directly was not the only way to alleviate food scarcity. Price checks and control of the markets to make basic staples available were far more common. The choice to apply such measures, however, depended on various interests the pasha and those involved in the food production chain had to consider. Even when a governor saw the welfare of his subjects as a prime concern, he would often have to face local pressures that would impede or prevent reduction of prices or replenishing of markets with supplies. For example, after severe famine in Aleppo in 1685, the governor tried to set the price of wheat at 5 *gurûş* per *irdabb* (roughly 150 kilograms), down from 25 *gurûş*, the price to which it had previously risen. Facing pressure from merchants, who profited from

the high prices and had arranged for the assassination of the *mutasallim* (acting governor), the governor had to give in.[14] Similarly, when famine occurred in Damascus in the 1730s, Governor Sulayman Pasha al-ʻAẓm (r. 1733–7, 1741–3) stationed guards near every bakery in town, to arrest looters and rioters trying to break in and steal bread. This action kept the market prices high; many consequently perished from starvation.[15] Sulayman's successor as governor, Asʻad Pasha al-ʻAẓm (r. 1743–57), was more successful in enforcing price control. He invited local notables to discuss the price of bread and persuaded them to agree to a rate of 25 *gurûş* for one sack of flour, a price he then managed to maintain for some time.[16] After vain attempts in 1746 to dissuade merchants from raising the price of bread, Asʻad Pasha imported the staple from Ḥama and it was sold for markedly less than the ongoing rates. He employed this tactic again on several occasions, until the end of his tenure as governor.[17] Sometimes, however, he had to ensure prices did not drop too low: During one subsistence crisis in 1749, he imprisoned those who strolled through the markets calling for the reduction of prices in his name, and then ordered the previous, higher prices restored.[18] In 1770, the pasha of Aleppo petitioned the British and French consuls for a loan that would finance imports of bread to the city. After weighing the possible implications of such a measure for their commercial interests in the region, the consuls decided to help the governor and bread became more affordable.[19] On the whole, then, the assistance extended to the needy was largely a result of a power game in the local arena. A governor's failure to come to terms with the millers, bakers, or bread sellers could cause the crisis to persist; or it could impel the governor to adopt unilateral measures to ensure grain supply and a reduction of prices. Often the end result represented a compromise between these various constraints.

In addition to relying on a governor's initiatives, people could petition the court for financial help or orders for intervention in market prices. This was a common practice in times of calm. Studying the court records of Aleppo, Abraham Marcus found several instances of residents who appealed to the *maḥkama* for help and were awarded sums of money or certain provisions.[20] When disasters occurred, judges helped out by ordering rent reductions for buildings and debt relief to those who had no place to stay or food to eat.[21] Sometimes qadis wrote and signed petitions to the Sublime Porte on behalf of the people in their town, thus helping facilitate the connection between subjects in the provinces and their ruler.[22] This typically happened after those affected by a disaster approached the court and requested tax reassessment, protection, or food supplies. Such, for example, was a plea sent to Istanbul on 4 September 1758 from the qadi of Sivas: He

reported that delegates of different groups in the city who went to his court complained that villages surrounding the town were deserted and their inhabitants scattered because of famine; the local governor granted the remaining poor villagers protection against plunderers, but they still needed financial assistance.[23] Seeking recourse from the court was also open to non-Ottoman subjects: In 1626, an agent acting for British merchants in the port city of Iskenderun came to the court with the town voivodes to ask for customs tax reduction, because of a long plague epidemic that prevented British ships from sailing and merchants from conducting business in the area. Approving of their request, the qadi forwarded the petition to Istanbul.[24]

Pashas and qadis, then, had different interests to consider when responding to the dearth of provisions or to epidemics. The welfare of their people was one; but there were clearly others, as can be seen from the numerous instances of official actions that overlooked the people's pleas. A tough stance in the face of rising prices could lead to bread riots, which sometimes led to the mob's attacking and killing those thought to be responsible for the rise. This happened in Aleppo in 1674, when an angry and hungry crowd captured and killed the *mutasallim* Ibrahim Pasha and the *naqib al-ashraf* Muḥammad al-Ḥijazi.[25] Events in 1734 had similar consequences. In 1751, bread riots resulted in the cancellation of the Friday prayer all over the city;[26] this was apparently such an extreme measure that the news quickly traveled to Damascus and was echoed in other cities in the area.[27] In the latter city, in 1743, a starving mob stormed the courthouse. As the qadi fled for his life, the people moved on to take temporary possession of the city's bakeries until the pasha's men crushed the rebellion and locked the bakeries and granaries.[28] Two years later, when famine was felt once again, a clash between soldiers loyal to the qadi and a group of Damascenes looking for food culminated in the qadi's men's shooting into the crowd.[29] When governors failed to restore order, chaos ensued, granaries were looted, food was stolen from stores and private homes, and peasants from neighboring villages flooded the city hoping to find food there. When similar events took place in Cairo in the summer of 1695, the Ottoman authorities in Istanbul intervened by dismissing the *wali* and appointing another. The new governor immediately took measures to alleviate the suffering of the poor, and the riots subsided.[30]

Beyond food provisioning and price policy, local governors took other measures to alleviate suffering during epidemics and prevent their spread. During a plague epidemic in mid-sixteenth-century Damascus, the city's governor prohibited the Greek Orthodox community from burying its dead in the church courtyard, claiming

that moving plague victim bodies away from the city reduced the risk of contagion. In its place, he allocated a graveyard outside the city walls.[31] Toward the end of the eighteenth century, local authorities began using quarantine as a form of prevention, as it had been practiced in Europe. Before then, it was used sporadically, as in the 1718 Aleppo plague epidemic, when the governor confined himself to his citadel and inspired other Muslims to do the same.[32] Already during the pandemic of 1760–2, quite a few local Ottoman officials chose confinement as a means to that end, and the governor of Acre issued orders for an eight-day quarantine of all traders and their merchandise entering the city by land or sea.[33] At that point, imposing quarantine was still uncommon but occurred here and there at the initiative of local officials. It would gradually become customary toward the later part of the century. In 1776, for instance, a Scottish traveler on his way from Aleppo to Jerusalem was placed in isolation in a monastery six miles north of Jerusalem, until a messenger verified that there was no plague along the route he had traveled.[34] A report from 1788 noted that ships entering the port of Chios from places suspected to be affected by plague were put in quarantine. Health officers were responsible for maintaining the lazaretto where people were kept in isolation, until their health condition was verified. The same officials imposed the quarantine of local villagers on the island of Chios when necessary.[35] The author of this report later described the application of similar measures in Crete.[36] Farther west, European merchants convinced the governor of Tunis to enforce quarantine during an epidemic there as early as the 1720s.[37] Quarantine would become common practice in the empire by the early nineteenth century.

Despite these and similar precautions that were taken by local officials, there seems to have been no systematic thinking as to which measures were really effective in averting or limiting the damage of famine and plague. Such acts as were described previously mostly reflected the personal understanding of those who applied them on the local level. These measures resembled those employed in Europe at the time, and we may assume that they were inspired, at least in part, by the interactions of Ottoman officials with European diplomats and merchants.[38] Istanbul led the way in attempting to improve public hygiene as it was understood then. From the sixteenth century on, qadis and grand viziers in the capital enjoined street-cleaning and paving operations, designated special areas for garbage disposal, and ordered businesses that produced refuse and pollution, such as slaughterhouses and tanneries, moved outside the city walls.[39] In the eighteenth century, apparently driven by similar motives, they also sought to limit the presence of beggars, restricting their entry or

banishing them from the city.[40]

Outside Istanbul, too, street, ditch, and waterway cleaning gradually became customary.[41] We hear of a *wali* in eighteenth-century Aleppo, who employed street cleaners to rid the city of foul smells so as to reduce the likelihood of a plague outbreak.[42] Similarly, in the midst of a plague epidemic in Acre, in 1760, the governor issued orders for street cleaning, with special attention given to cats, which, he believed, were spreading the plague. To terminate the epidemic, the pasha ordered cats hunted and killed. The result was just the opposite of that intended: With fewer cats around, the town's rat population soared and the disease continued unabated.[43] Occasionally, governors initiated cleaning maintenance operations that entailed extensive works and involved many laborers. Thus in Aleppo, in May 1760, the qadi mobilized people to clean the city's water supply system, a project that lasted for about ten days. It had to be repeated periodically, because the aqueducts carrying water to the city were gathering dust and filth. According to Patrick Russell, a foreign doctor who happened to observe this in action, the qadi's insistence on repeating the operation annually guaranteed that the city would not suffer from water shortages.[44] But as Alan Mikhail has recently shown in his study of Ottoman Egypt, such projects were usually limited in scope in the eighteenth century and involved relatively few workers; more structures deteriorated into disrepair than were renovated.[45]

Clearly, then, preventing starvation (and the popular uprisings that it potentially entailed) was not the only concern guiding Ottoman governors in such undertakings. Apart from ensuring a basic subsistence level for the public, the pasha had to satisfy the different actors with political influence in his province or city. Whether the pasha was a local or sent from the capital or another province naturally determined his network of allegiances. In Egypt, Damascus, or Aleppo, where *walis* in the eighteenth century were usually members of prominent local families, they had to consult other notables from time to time. In such circumstances, a move such as fixing market prices for grain and bread, which had implications for both producers and consumers, was highly sensitive and had to be considered carefully. As'ad Pasha of Damascus is known to have convened the city's notables to discuss price control measures; other governors most likely did the same periodically.[46] Ottoman officials owed their survival in their posts to the alliances with influential groups and individuals they were able to establish. Those involved in the food-production and distribution chain were surely a constituency to whom a governor had to be attentive. This explains why decisions in times of crises and dearth sometimes seemed to favor particular

over general interests.

The familiarity of local authorities with the area and people under their control and their ability to act swiftly once a disaster struck were vital to the success of relief efforts, but they were not always sufficient. When people were dissatisfied with the action taken by their pasha or qadi, or when more thorough measures were required, the imperial government was called upon to step in. The latter had a different set of priorities than its local agents; decisions on the imperial level sometimes contradicted those of pashas and qadis. Viewed from Istanbul, natural disasters posed several problems. First, they undermined public order and could lead to political instability in the affected region that could spill over to other parts of the empire. Second, they created subsistence crises in certain areas that had to be resolved to prevent further chaos and to maintain the basic principle of moral economy.[47] Finally, calamities killed populations or prompted their movements to new areas, affecting the ability of the state to govern effectively, collect taxes, and control the shipping and distribution of commodities. The responses from Istanbul, as recorded in thousands of documents, registries, and imperial decrees, reflected an acute awareness of the need to address such actual and potential problems. The suffering of the people as such did not seem to be a major concern for the empire: The state was rarely proactive in its disaster prevention, containment, or relief efforts, and normally a petition on behalf of victims or a local official was required to initiate action. Unless a crucial interest of the empire was at stake, someone had to ask for help to get it. Sometimes areas hit by famine or plague lay in desolation for as long as several years before any intervention occurred. For instance, a petition from Üsküp (Skopje) in 1652 pleaded for a reassessment of taxes in response to a "great plague" that considerably reduced the area's population a few years earlier.[48] Similarly, a report from May 1673 discussed the need to recalculate taxes for various neighborhoods in Damascus after an unspecified disaster had occurred there several years previously.[49]

Restoring normalcy and reestablishing security were usually the duties of local authorities. Yet, when the problems were too complex for the pasha to handle, when the imperial government deemed his performance unsatisfactory (on the basis of petitions received from people who wished to see him replaced), or when the governor or his garrisons left the area for some reason, orders were issued from Istanbul to solve the problem. An order from 1573 explained that a plague epidemic in the region between Edirne and Hasköy (today a part of Istanbul) caused people to flee and rendered many villages deserted, with the result that bandits took over the area. In an attempt

to control the situation, the sultan sought to track down the people who had left and return them to their villages. Such repopulation, it was believed, would help restore public order.[50] A plague that affected Erzurum in 1577 caused its population to scatter. To restore order in the area, a decree was issued to rebuild the citadel and the trenches surrounding the town, apparently in order to allow more effective control of the town and its environs and facilitate repopulation.[51] In the next century, the *mutasarrif* of Mora (the Morea, in Greece) responded to complaints lodged against Ali, the commander (*ağa*) of the fort of Navarin (Navarino or Pylos, also in the Morea), who had abandoned his post in response to a plague outbreak in the area: The *mutasarrif* ordered Ali's dismissal and nominated instead the former *ağa*, Abdurrahman, who was expected to take better care of the fort and the people in general.[52] At another instance in 1680, plague hit Hatvan (in Hungary), killing many and causing others, primarily *timar* holders and *sipahis*, to flee to the neighboring Eğri castle. As Hatvan was a frontier town – the Ottomans lost it to Austria in 1686 – the sharp decrease in personnel called for the assignment of new garrisons to the area.[53] Similar interventions took place later as well, although they become less documented from the eighteenth century.[54]

More effective than the moving of troops and reappointing officials was the shipping of grain and other provisions to famine- and plague-stricken areas. These helped ensure that the Ottoman economy and military continued to function, and that people had enough to eat and hence were not inclined to stir social and political unrest. The Ottomans understood well the connection between subsistence crises in remote provinces and trouble that could erupt in the capital. They therefore developed a system of grain shipping from areas of surplus to places that suffered from want. Such shipments were relatively easy to handle via sea routes – by far a cheaper mode of transportation than land travel – but matters were more complicated when the affected area was not approachable by water, as in eastern Anatolia or the cities of Damascus and Aleppo. Shipping grain to these areas could become prohibitively expensive, a circumstance that may explain why some major revolts against the Ottomans started there. Difficulties in grain shipping were aggravated when drought and famine persisted for several years, or when they coincided with wars, which increased manifold the army demand for food. Such circumstances developed in the last decade of the sixteenth century: The state prioritized the palace and the military in grain and meat supply and set the price of meat significantly below market value, driving sheep suppliers out of business. Consequently, food supplies dwindled even more. The state's inability to resolve subsistence crises led to large-scale population

movements and unrest and was one of the factors behind the outbreak of the Jelali (or Celali) rebellions.[55]

Fortunately for the empire, continuous harsh weather that generated drought and famine, combined with wars and bad policies, was the exception rather than the rule. Normally, and especially from the second half of the seventeenth century on, Ottoman famine relief policy seems to have worked effectively.[56] Numerous documents depict a systematic routine: A complaint about food shortages would be sent to Istanbul, and the sultan or grand vezir would respond by issuing orders to provide the area with appropriate amounts of grain, specifying which region should supply it. Thus, when locusts destroyed crops in the vicinity of Aleppo in 1728 and famine ensued, an order from Istanbul required the transfer of 36,000 *keyl* (about 980 tons) of wheat from Salonica and coastal towns in Anatolia to the port of Iskenderun, from which it was to be distributed to Aleppo and its vicinity.[57] In the same year, Izmir also suffered from acute famine and, as in the previous case, a decree ordered the shipment of 15,000 *keyl* of wheat to the city.[58] A year later, famine broke out on the island of Sakız (Chios), and a firman enjoined the transport of provisions to the island to alleviate the dearth.[59] In the wake of yet another famine in Aleppo, in 1745, wheat was sent there from Antakya (Antioch).[60] And in 1782, wheat and other supplies were sent to Karahisar to offset damages of a devastating famine and plague epidemic.[61] When the regions affected by disasters were themselves centers of food supply to other parts of the empire, discounts or exemptions from the need to supply the annual shipments were given: After a famine and plague in towns near Diyarbakır in 1787 and 1788 that killed many and forced others to flee, the area was given exemption from its obligation to supply the Ottoman army with 5,000 *qintar* (weight unit, roughly 250 kilograms) of biscuits (*peksamet*) in 1789.[62] In the late eighteenth and early nineteenth centuries, the state continued to devise arrangements such as deferring obligations or substituting money for commodities, so as to alleviate the pressures of decreased agricultural production due to famines and plagues.[63]

Common to the making of new appointments, sending troops to a disaster area, and shipping grain from one location to another was their high cost. A simpler solution was the adjustment of tax rates, so disaster victims would be exempt from or pay lower taxes for some time. Indeed, the greater share of Ottoman responses to plagues and famines I found in the archives involved taxation adjustment of some sort. The ratio of taxation-based solutions among the various forms of response increased after the mid-seventeenth century. The Ottoman preference for the easy solution of adjusting the levied income was a

by-product of changes the empire underwent at the time. These will be discussed later in the chapter.

The most common way of granting tax breaks to disaster-affected areas was through reassessment. This would happen after a group of complainants, usually survivors of plague or famine, would submit a petition to the court requesting that, since many people had died or fled, the tax bill for the village or province be adjusted to fit the new numbers. Submitting such a request was necessary, because the Ottoman Empire levied taxes from districts as a whole according to the number of households (*hane*) registered in them, rather than individually. A petition could also be sent directly to Istanbul, but the evidence suggests that this was rarely done. To lend the petition weight, and to draw the proper attention from bureaucrats in Istanbul, pleas for tax reassessments were summarized and signed by the qadi. They were then sent to Istanbul, where a decision was made. Sometimes the number of *hane*s was computed anew, affecting the tax rate for the district or province; this was done promptly – within days from the dispatching of the letter – and without investigating the matter further. At other times, the state would order a reassessment of taxpaying households in the area to determine the new rates. Overall, this was an expeditious process. It required little effort on the part of the state, which mostly responded to petitions without having to initiate its own action.[64]

The Ottomans granted tax breaks or extensions already in the sixteenth century. Sam White cites three such examples from 1568, 1574, 1579, and there were probably more.[65] The numbers rose markedly from the second half of the seventeenth century, whereas other types of solutions declined simultaneously. To quote an example, in 1660 plague survivors from a village in the Göynük area (a town 250 kilometers southeast of Istanbul) complained that the epidemic had killed many villagers and caused others to flee. Twenty days after the qadi in Göynük signed the petition, a decision was made to reduce the number of *hane*s in that village from three to one.[66] Similarly, in 1691, plague and famine in Eskişehir left a few villages nearly deserted. Two men went to the *maḥkama* and claimed to be the only survivors of their village. After hearing another witness who confirmed the claim, the qadi signed a petition for tax reduction and sent it to Istanbul, where it was eventually accepted.[67] Yet another example is from the late 1690s, when plague and malaria epidemics along with famine devastated areas from Bulgaria to southeast Anatolia. By then the routine of submitting requests for tax breaks through the qadi seems to have become well established, as attested in numerous accounts of devastated villages and towns whose tax rates

were adjusted.[68] The practice continued at least until the end of the eighteenth century, with requests for tax reassessments received from all over the empire.[69]

This shift from an active to an essentially passive kind of response – passive in the sense that it required taking administrative actions only – also affected two other disaster policies related to plagues: flight and quarantine. We have already seen that Muslim scholars throughout history concerned themselves with the question of whether it was permissible to flee from a plague-stricken area. In a recent study on fifteenth- and sixteenth-century Ottoman attitudes toward plague, Nükhet Varlık has tied the actions of sultans and other state officials to changing conceptual ideas about the disease; she has treated their tolerance of fleeing as a kind of disaster-relief strategy. Varlık has suggested that already in the fifteenth century, and more so in the sixteenth, Ottoman authors accepted the idea of contagion, whose practical implication was condoning flight. Thus the jurist and scholar Ahmet Taşköprüzade (d. 1561) explicitly recommended leaving areas where the plague was raging under certain circumstances, and S,eyhülislam Ebusuud Efendi (r. 1545–74) endorsed a similar stance in his religious rulings (*fetva* or *fetava*, from the Arabic *fatwa*).[70] For Varlık, the acceptance of the concept of contagion and flight signified a shift that was at once intellectual and practical: The texts of plague treatises and the *fetava* reflected "popular perception of the disease" in Ottoman society and actual practice, just as similar texts written in Europe teach us about popular notions and practices in the Christian world.[71] A close reading of Ebusuud Efendi's rulings on plague reveals, however, that he actually believed in a response to epidemics not significantly distinct from that of the prophetic tradition. In one *fetva* he indeed condoned flight from plague, if it was done out of a desire to please God.[72] But elsewhere he suggested that a man must put his trust in God when considering whether to send his women and children away from a plague-stricken town; and that the wealthy people of the city and its imams should be punished and dismissed from their positions for leaving its poor to die of the plague while they found refuge elsewhere.[73] At least from these *fetava*, then, it is not at all clear that the Ottoman attitude toward plague had changed much from earlier periods. What the questions addressed to Ebusuud do indicate, however, is that irrespective of religious stances on contagion, people did flee from the plague and other disasters.[74]

It seems that Ebusuud did not voice any new ideas that would mark a shift in the accepted wisdom on flight. Like many before him – and most befitting the chief religious authority of an empire that tolerated different traditions – he was flexible and left much room for

interpretation. But regardless of whether he or other scholars believed in contagion, the deep-rooted premise that escaping an epidemic meant fleeing from God persisted. Indeed, the essential understanding of plague and other calamities changed little between pre-Ottoman times and the eighteenth century. Texts written or copied during the eighteenth century recommended not flight but rather various forms of supplication to God as the best preventive measures for self-protection. They included reciting prayers, preparing special amulets, and designing talismans that featured matrices with nine or twelve squares, each containing a certain letter or symbol, to be placed above one's door or window or hung as a pendant around one's neck. Plague treatises also offered simple medical advice, such as avoiding moist places and excessive movement during times of plague and maintaining a low body temperature by not remaining too long in the sun or at the *hamam* (public bath; *ḥammam* in Arabic).[75] In one tract, written under the impact of the 1785–7 plague in Syria and Palestine, the author assembled traditions about the plague from the time of the Prophet to his own, designed to remind his readers that in time of plague one must put one's trust in God. Quoting Abu Musa al-Ash'ari (d. c. 662), a companion of Muḥammad, the author explained that "the one who dies of the plague becomes a martyr; the one who survives it is like the one who is committed to the path of God; and the one who flees from it is like the one who flees from wars with the unbelievers."[76] It seems, then, that while some seventeenth- and eighteenth-century authors permitted flight (as had always been the case), many others adhered to the more traditional view that held plague to be a form of divine punishment, or blessing.

Plague treatises have their intrinsic value as mirrors of popular sentiments regarding events whose explanation evokes supernatural powers. But they are useless for understanding Ottoman policy on the question of flight. Since the early years of the empire, sultans, officers, provincial governors, and qadis – as well as ordinary subjects – responded to life-threatening situations in ways that had little to do with religious beliefs or with scholarly notions of flight and contagion. In the early stages of the empire, during the fourteenth century, the question of permissibility of flight from disasters did not seem to bother Ottoman rulers much. While our evidence for early Ottoman history is scant, and there is virtually none regarding their responses to disasters, it is hard to see how a policy of sticking to one location when plague or famine occurred worked with their agenda of mobility and expansion. As I argued in the previous chapter, the Ottomans' advantage over the Byzantines was their relative mobility as nomads. As the early Ottoman state had a majority of Christians, some with prominent positions in the court, and as the early sultans were

influenced by Christian-Greek culture, the discussion of epidemics in Islamic texts must have played a limited role in Ottoman responses to plague. And indeed, the first detailed testimony we have of an Ottoman sultan dealing with plague speaks of Mehmet II's fleeing epidemics with his army, time and again, in the 1450s, 1460s, and 1470s.[77] Less than a century later, we find a different approach to flight when Süleyman I refused the Austrian ambassador Busbecq's request for permission to leave Istanbul during plague. Asking the grand vizier, Rüstem Paşa (r. 1544–53, 1555–61), to inquire of the sultan about leaving Istanbul, Busbecq received the following answer:

> What did I mean, or where did I think of flying? Did I not know that pestilence is God's arrow which never misses its mark? Where in the world could I hide myself, so as to be shielded from the stroke of His weapons? If He ordained that the pestilence should strike me, neither flight nor concealment would be of any avail. To try to escape from the inevitable was a vain attempt. His own palace was not at that very moment free from the plague, but nevertheless he stayed there, and it was likewise my duty to remain where I was.[78]

It is tempting to assume that religious fervor had taken over the Ottoman court and that the sultan now adopted an anticontagion approach. More likely, Süleyman was only using predisposition as an excuse to refuse Busbecq's request. What the sultan did not disclose in his reasoning delivered through Rüstem, the next grand vizier 'Ali Paşa (r. 1561–5), stated explicitly. Everything, said Busbecq, "depended on the way in which a matter was brought to the Sultan's notice, and that he [the grand vizier] would lay the subject before him [the sultan] in such a manner as to leave no doubt of his assent." Sure enough, 'Ali Paşa informed Busbecq shortly after that the sultan granted permission for Busbecq's departure from the city.[79]

The idea of fleeing plague or disaster-stricken areas in general was not one Ottoman rulers, bureaucrats, and scholars particularly liked. But, contrary to a view that had been common until recently, the reason for favoring staying over leaving was practical rather than religious. Sam White has argued that most Ottoman subjects avoided fleeing "not because flight violated divine law, but because it violated imperial law." To support his argument, he has cited sixteenth-century documents that explicitly banned flight. For the state, flight was problematic because it created chaos and allowed people to avoid paying their taxes, which were collected from villages, towns, and districts as a whole. Since, at least in principle, one had to pay one's taxes in full before leaving, most peasants and the lower classes who

could not afford to pay their dues were tied to their lands or towns. Such a policy, White has suggested, also helped the Ottomans thwart the spread of plague over vast distances.[80] One has to wonder, however, whether the issuing of so many orders to local governors, reminding them of the ban on fleeing, did not indicate that many people in fact did leave, or at least sought to.

Such speculations are not necessary for the second half of the seventeenth and the eighteenth centuries. Apparently at some point before the mid-seventeenth century, the Ottomans came to accept flight as a necessary outcome of plague and famine and no longer tried to check it. This is clear from the many reports in the archives, which describe deaths and fleeing populations in a laconic, technical language phrased in standard formulae.[81] Authorities' responses to reports about flight were pragmatic: Rather than trying to prevent people from leaving, they offered solutions to the victims who remained behind. As we have seen, these mostly involved tax reassessments, reductions, or exemptions. Thus, in response to a request sent from Ipsala concerning tax adjustments due to plague, the deputy qadi (*naib*) was asked to conduct a survey of the people who had died and those who had fled. The deputy's report from June 1699 was compiled two years after the plague occurred, suggesting that the Ottomans did not intend to use the information on those who had fled in order to find them and make them pay their taxes. More likely, the data were needed for recalculating taxation for the remaining survivors.[82] In a somewhat clearer case from January 1704, the deputy qadi of Şehirköy sent a petition requesting tax reduction for one of the province's villages. The last tax assessment for the area, in 1686, had found eight and a quarter *avarız hane* there, but since then the area had been struck by plague and many had died or fled. The deputy therefore asked for a minor tax adjustment out of mercy for the remaining victims, and the orders were given to proceed accordingly, without inquiring about the fleeing people.[83] Similarly, in 1729 the state reduced the tax rate for two villages near 'Aintab (today Gaziantep) after most of their people had died or fled during a plague epidemic.[84] A similar solution was offered when people fled an area because of famine, or a combination of famine and plague.[85] Such reports show that in the seventeenth and eighteenth centuries the state understood the impracticality of trying to prevent migration due to natural disasters, even if these resulted in loss of revenue.[86]

Changes in the Ottoman economy, particularly in its tax system, in the late-sixteenth and early seventeenth centuries also accounted for the shift to tax remissions as a form of disaster relief. Up to the late-sixteenth century, the Ottoman economy operated according to feudal

models, with taxes collected in kind from independent fief holders, mostly military personnel who were allocated tax farms. In the late-sixteenth century, the Ottoman economy was becoming a monetary one, with an extensive network of markets spread all over the empire and connected to international markets in Europe, South Asia, and the New World. This meant that more people were on the move and no longer tied to their lands. It was also in this period that social mobility increased. Assuming military titles for economic benefits became a means for Ottoman entrepreneurs to rise in rank and join the *askeri* elite, previously mostly recruited through the *devşirme* system. There were thus new potential sources of generating revenue, which required a readjustment of the state's tax-collecting system, and population movements became less relevant to the collection of taxes. In the first half of the seventeenth century, responsibility for tax collecting was assigned to people outside the military class, with no necessary relation to geographical location.[87] Maintaining production capacity of farmers without raising the financial burden on them, so the empire's food chain continued to function, still guided the Ottoman authorities. That was probably an additional and important reason behind the multiple tax reassessments for peasants whose villages were struck by disasters.

The reactive disposition of the Ottoman state from the seventeenth century on was also apparent in its attitude to the use of quarantine. As in the prevention of flight, which required great efforts the state was unwilling or unable to exert, so also enforcing isolation on people and ships would have required more funds and bureaucratic work than the empire cared to expend. Allowing flight while not applying quarantine should not be viewed as contradictory policies: The two had little to do with whether Ottoman sultans or their advisers believed that fleeing guaranteed effective protection from epidemics. Rather, these policies reflected the state's desire to maintain conditions as they had always been with minimal intervention. It would usually take action only when disaster victims sent in petitions. As we have seen, from the later part of the seventeenth century state interference was minimal and usually did not entail sending agents or funds to an affected area.

To be sure, the Ottoman position on preventing plagues was not the result of ignorance or idleness. Ottoman authorities certainly had knowledge about quarantine as a preventive method. As we have seen, placing people and merchandise in isolation was practiced here and there by local Ottoman agents. Furthermore, European diplomats and traders in the empire had a stringent plague policy that prohibited sailing from an epidemic-ridden port city until forty plague-free days

had passed. This policy slowed business in the eastern Mediterranean and must have made an impression on Ottoman officials of all ranks. I have not found direct references to quarantine in the archives, but there is evidence of foreigners approaching the *maḥkama* and asking for a reduction of various payments to the Ottoman treasury in times of decreased economic activity due to plague. For example, in 1624–5 French and British merchants in Iskenderun submitted petitions to the court in Aleppo, in which they explained that because of their confinement their business activities had come to a near-standstill.[88] Such evidence, again, clearly indicates that the Ottomans were well informed about the concept and practice of quarantine. Hence, at least conceptually, it was not a novelty Bonaparte introduced in Egypt in the late 1790s.

If the Ottomans knew about quarantine, why did they not introduce it as a policy throughout their empire? As so often with such elusive questions, the answer must include a combination of several elements. In this case, it was a blend of fundamental beliefs, an astute analysis of the method itself with its pros and cons, and some powerful economic constraints. To start with, there was an enduring conviction that plague was a sign of divine punishment, an adversity that could not be averted by human action. It was accompanied by a general suspicion of anything European. Such sentiments – they will be considered at some length later on – are, admittedly, easier to cite than to assess for their actual weight. But there can be little doubt that they were present and served as a check, quite likely a potent one. In addition, it seems that at least some of the sultans had little faith in the effectiveness of quarantine, perhaps because isolation as practiced at the time was only partially successful; its effectiveness seemed erratic and unpredictable. As we know today, placing ships in lazarettos for some time was fairly helpful in preventing rats, and therefore plague, from entering a city; but confinement and isolation within areas already suffering from plague were not very useful, because rats lived and died in roofs, in between walls, and underground. Witnessing the limited results of quarantine in Europe, including instances of Europeans who retired to their estates and still died of the plague, the Ottomans could not but view such tactics with skepticism.

There were more compelling reasons for avoiding quarantine. Sustaining the empire depended to a large degree on using the Mediterranean for moving commodities and people, a way of shipping that was far cheaper and quicker than overland transportation: Wind power was free; freight animals proceeded more slowly and had to be fed. Wool woven in Salonica in the sixteenth century was sent by ships

to Safed in Palestine to be dyed, and then back to Salonica and other port cities for sale.[89] And wood from trees grown in Anatolia in the eighteenth century was sent to Egypt via sea and the Nile and was used there for building ships that would transport Egypt's grain back to its prime customer, Istanbul.[90] Quarantine was designed primarily for isolating ships at the port of arrival, usually for more than a month (even at the cost of spoiling the merchandise), or for preventing ships from sailing out. Its extensive application, therefore, would have implied long periods of commercial inactivity, circumstances that would have formed a tremendous impediment to the empire's economy and to its ability to feed its subjects. In the sixteenth century, when initiatives of local governors to impose quarantine interfered with the state's priorities, the latter intervened to prevent them or even dismiss the pasha who made the decision. Such, for instance, was the case in Egypt in 1579, when the pasha of Alexandria, Receb Bey, refused to permit the departure of pilgrims returning from Mecca, merchants, and others who were heading for Istanbul, on the grounds that plague was then raging all over Egypt. The government's reaction, a harsh decree addressed personally to Receb Bey, left little doubt about Istanbul's intentions. It is worth quoting in full:

> This is an edict [addressed to] the governor of Alexandria, Receb Bey:
>
> A letter was sent [to the Porte, stating that] the provisions were prepared for the galleys in Alexandria while plague was still raging in Cairo and Alexandria. Therefore, the ships that had arrived in mid-May have not yet been equipped, and [as a result] the ḥajj pilgrims, a group of merchants, the former qadi of Cairo, and other people headed toward my court, have not yet arrived. You are hereby informed that a petition sent to us by a group of gatekeepers and others who have not yet departed condemned your actions. Therefore, because in your continued disregard and negligence you have failed to perform your duties, and because many Muslims have suffered damage to themselves and their property, you should be reproved and punished. I therefore ruled that on the arrival [of this order], in the interest of ensuring that those who are waiting in confinement and the Mediterranean merchants, including the lowlife infidels, suffer no further damages, you are to demonstrate careful and steadfast attention to these issues, so much so that if we again hear of your negligence and failure, your apology will not be accepted, and not only will you be dismissed [from your post], but also be insulted. Do not act inappropriately.[91]

From the seventeenth century, and especially during the eighteenth, as the empire became more reactive in its responses to disasters, more local governors took initiatives to prevent plague by applying quarantine. Yet, while the state did not normally intervene to avert such measures, it also did not promote a similar policy on the imperial level. It seems that the state allowed its local agents some latitude in shaping their own quarantine (or other) policies, so long as these did not interfere with the empire's or cause too much turmoil. When they did, decrees such as the one quoted were issued or officials were dismissed.

The sense, alluded to previously, that plague was a God-ordained punishment, beyond inspiring the acts of sultans and their officials also represented a popular and durable sentiment in Ottoman society. Its ongoing prevalence should be seen as another part of the context for the government's reluctance to adopt quarantine. As I discussed in Chapter 1, unlike the changes affecting European society after the Black Death, plague had remained an integral part of the environment in the eastern Mediterranean. Like rain, floods, drought, famine, and other natural occurrences, plague was something people expected and knew they had to live with. They encountered death regularly, and plague was one of its many causes. Death was regarded as a division of human existence in Ottoman lands, and the world of the dead as an inextricable part of the world of the living – in physical proximity, rites, and social conventions. Introducing European-style quarantine would imply terminal separation between the sick, who would most likely die, and the rest of society. That would have been an assault on one of society's important principles, the essential delicate balance between humans and the environment. The Ottomans attributed much importance to working with nature, and this in itself could have been a weighty consideration against enforcing quarantine globally. Their reservations in this respect turned out to be well grounded: When Bonaparte introduced quarantine in Egypt, in March 1799, it soon became clear that it worked against some of the basic fundamentals of Egyptian society. The measure caused widespread discontent and fear of dying alone, away from one's family; and it prevented the carrying out of centuries-old practices and customs associated with plague and dying.[92]

Overall, state authorities on the local and imperial levels responded to plagues and famines in ways that reflected deliberate interests, well-calculated priorities, and sincere concern for the well-being of their subjects. One of the characteristics all of these responses had in common was the equal access Muslims and non-Muslims alike had to the aid provided, including food distributions and tax reassessments.

To students of Ottoman history who are familiar with the empire's anti-*dhimmi*discrimination, such a finding might perhaps seem a little surprising. Discrimination against *dhimmi*s did exist in the Ottoman Empire, even if to a lesser degree than in earlier Islamic states. I deal more thoroughly with the status of *dhimmi*s in Ottoman society and the question of communal autonomy in the next chapter. Here I shall only point out that the evidence about the empire's responses to disasters does not corroborate the assumption of continuous and systematic discrimination against non-Muslims.

The nearly equal treatment of Muslims and *dhimmi*s in the wake of disasters is most apparent when examining responses on the imperial level. When the Ottomans ordered the redistribution of grain and the shipping of foodstuffs from areas of surplus to those of dearth, they targeted the needy population at large, without regard for religious differences, as perhaps one would expect to find. Admittedly, I have not found a document discussing shipping of grain to famine- and plague-affected areas that would target a specific population or community or exclude one. The documents discussing transfer of provisions usually provide few details on the intended end beneficiaries; at most they state that the orders have been issued to help the flock of poor people (*re'aya fukarası*), a term applicable to Muslims and non-Muslims. For example, after a locust attack in the province of Aleppo that took place sometime before January 1729, the Porte issued orders to send 36,000 *keyl istanbuli* (about 980 tons) of wheat to the port of Iskenderun, whence it was to be distributed in the province. The wheat, which was to originate in Salonica and other port cities in Rumeli, would be delivered to storehouses and not simply distributed to the poor. Neither of the two documents discussing this major transfer mentioned any limitations on the identity of the eventual beneficiaries.[93] Famine with similar causes in Karahisar in 1782 led the state to send fodder and barley to the area, again without any instructions on how these should be distributed.[94] Other documents about the transfer of grain to famine-affected areas are similarly silent about individual or group recipients.[95] This absence of any designation of potential aid recipients implies either that the authorities in Istanbul did not care whether only certain populations benefited from the sent aid, or, more likely, that they preferred to leave such decisions to governors and other local officials. Most orders for the shipping of grain were addressed to officials in the receiving province, who were responsible for the provisions and their distribution.

Absence of discrimination against *dhimmi*s is also apparent when looking at tax breaks the state had issued to disaster victims. An

imperial decree from 1650 bearing the seal of Sultan Mehmet IV (r. 1648–87) discussed the need to reevaluate the number of *jizya* (poll tax paid by non-Muslims, also *cizye*) payers in Lofça (Loveç, in Bulgaria) because many Christians and Jews there had left the area after a harsh winter that led to famine.[96] In another report from 1705, Musa Ağa, the official in charge of collecting the *jizya* in Gümülcine (Komotini), explained that because of plague in the area that resulted in many deaths, he could not distribute the tax documents (or tax bills, *evrak*) and collect the funds. In response, he received orders to collect taxes from the poor, midlevel, and rich *dhimmi* survivors at a reduced and proportional rate.[97] Similar adjustments after the death and flight of Christians and Jews during a plague epidemic were made for Aleppo in 1719 and Crete in 1730.[98] The practice of reassessing *jizya* dues, just as with the *avarız*, was still followed in the late eighteenth century.[99] There is no way of telling whether the state reassessed *jizya* at the same rates as other taxes. But at least one point is amply obvious from the examples cited here (and from many others that one is likely to find in the archives): In responding to disasters, the state did not deliberately seek to discriminate against non-Muslims. The implications of this finding will become clearer in the next section, in which I discuss Ottoman reconstruction projects that followed calamities.

Earthquakes and Fires

Like plagues and famines, earthquakes and fires happened frequently in the Ottoman Empire and affected the lives of many. As with epidemics and subsistence crises, they were interconnected disasters: Earthquakes often led to conflagrations that yielded more damage than the quake itself (see Figure 2.1). Yet they warrant a separate discussion, because in addition to causing population displacement, poverty, and revenue problems for the state, earthquakes and fires also altered the landscape of cities and villages and might result in long-term demographic changes. This had a potential effect on the relationship between state and subjects: At least since the early sixteenth century, the Ottoman Empire used architecture and the foundation of *waqf*s as a primary means for asserting its presence and authority in a place. Architectural monuments and foundations – grand mosques, soup kitchens, public baths, and water fountains – assured the visibility of Ottoman rule in its territories. Through the services these institutions provided, and the functionaries who operated them, the state was involved in the lives of its subjects, albeit to a limited degree, and sultans retained patronage over their people. The destruction of such monuments, as recorded in many

postearthquake reports, threatened to disrupt that ruler-subjects relationship, which the state was eager to maintain.

Figure 2.1. Istanbul after the earthquake of 1755. Damage to buildings, fires burning in the background, and victims gathering their possessions are visible in this engraving. Courtesy of the Jan Kozak Collection.

In this section, I examine instances of government responses to earthquakes and fires, which will shed light on other state interests and priorities. As with plagues and famines, provincial authorities took certain preventative steps to reduce the risk of fires, and the state used tax breaks as a way to ease the burden on victims, a measure that became common in the seventeenth century. But as I argue, the Ottomans were far less passive when earthquakes and fires destroyed cities and provincial centers. Examining reports of rebuilding projects launched after earthquakes, this section will delineate the process of state-sponsored postearthquake and postfire reconstruction. It will analyze the priorities that guided the Ottomans in executing massive public works to rebuild cities, selecting the structures to be renovated, and financing them.

Despite having some knowledge about the causes of natural disasters, the Ottomans were on the whole quite inefficient in handling them. As we have seen, initiatives were taken on the local level to reduce the risk of plague, and the state tried to limit the danger of famine by maintaining a regular schedule of sending provisions to areas that depended on outside grain. The link between reduced supplies and famine was clear to its officials.[100] Furthermore, the state was aware of the connections between different kinds of disasters – notably, plague leading to famine and vice versa, and

earthquakes often producing fires. The state even recognized a correlation between the social chaos in the aftermath of earthquakes and fires and the eruption of epidemics.[101] Yet, the Ottoman government might not have understood the core causality behind these interrelated developments, because it was missing some key pieces of the puzzle. Since no one at the time knew about bacteria or rat fleas, and since a scientific perception of earthquakes was at its inception in Europe, there was little the Ottoman state could effectively do to curtail a disaster.

Fires were the only exception, the causes and ways to prevent them being well understood, even though they too were ultimately perceived to be the work of God.[102] In Istanbul, where houses were mostly made of wood and fires happened often, the state operated firefighting squads. Firemen teams, members of the Janissary corps or controlled by it, were deployed to fire areas when necessary, equipped with water pumps known as fire engines (*tulumba*). Firefighters were supervised by the grand vizier or the sultan and were paid regularly and after each fire they extinguished. They were not always successful in executing their task: Strong winds, the ample presence of flammable materials in town, and old equipment, all could lead to unsatisfactory results. Fires often burned for days before being extinguished or until they naturally died out. As a result of notorious corruption among their ranks and the Janissaries' ill-reputed tendency for plunder, people often tried to put out fires by themselves or hoped the flames would burn their house before the firemen arrived.[103] When the flames subsided, the government had to pay the firefighters to prevent them from carrying out further rioting and looting.[104] It also had to take care of displaced people, often by forced resettlement,[105] and to manage the burned areas. often in the wake of a fire, the state issued new regulations intended to prevent future outbreaks. This happened, for example, when after a great fire in Istanbul in the summer of 1633 the government issued a prohibition on smoking and drinking coffee, ordered the destruction of several coffeehouses, and executed smokers and drinkers.[106]

Unlike the wealth of extant evidence on fire prevention and curtailment efforts in Istanbul, we have little of it for the provinces. One might wonder, then, whether this discrepancy indicates that fires were more frequent in the capital than in other parts. Obviously, the nature of firefighting required that it be organized locally, not imperially, and this could partly explain the voluminous references to the handling of fires in Istanbul and its environs, both in the archives and in writings of Ottoman chroniclers who resided there and witnessed them. There were two other equally important reasons for

this disparity in evidence, which related to quality of building materials and weather conditions. Because wood was readily available around the capital and could be transported there inexpensively from elsewhere in Anatolia, it was commonly used in house construction. By contrast, in the Arab provinces there were no forests and importing wood from Anatolia was costly. Consequently, in Ottoman-Arab cities such as Aleppo, Damascus, Jerusalem, and Cairo, stone, clay, and mud were used more extensively than wood.[107] We may carefully assume that buildings in those provinces were somewhat less susceptible to conflagration and may have suffered less from fire outbreaks than those in the capital area (see Figures 2.2 and 2.3). In addition, Istanbul, situated on the Bosphorus, was exposed to strong wind currents. These provided for mild summers and winters, but also helped fires spread rapidly so much so that entire quarters would be wiped out within hours.[108] Under such conditions, the severe damage from fires was more likely to be documented for Istanbul than other cities.

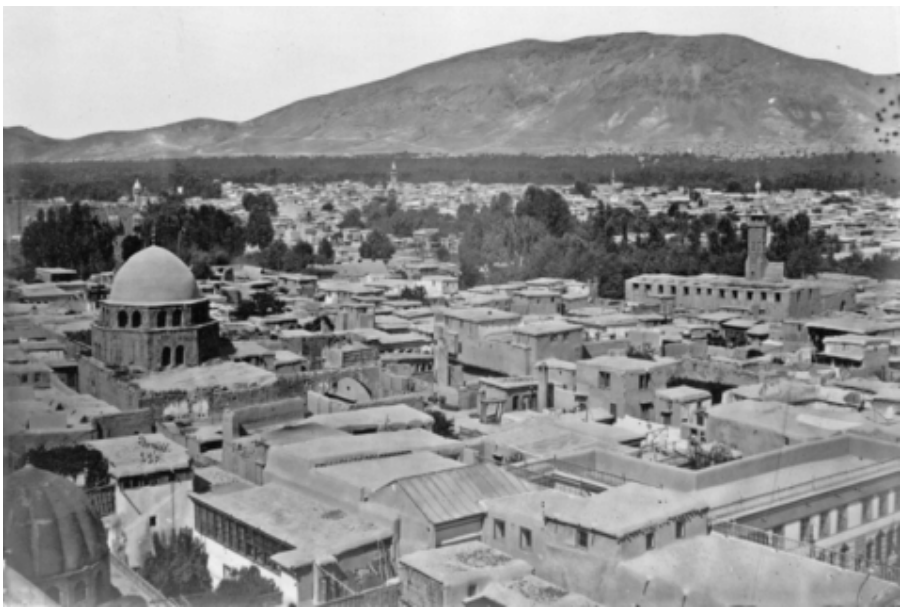

Figure 2.2. A general view of Ottoman Damascus, c. 1880. Note that most houses are made of stone or clay. Photo by Felix Bonfils. *Source:* Library of Congress.

Figure 2.3. A house in Bursa from the Ottoman period, built after 1855. Note that wood is the main material used for construction. Author's photo.

Still, fires did occur in those other areas of the empire as well, and when they did, pashas employed or mobilized people to fight them. In Damascus, in 1544, fire flared up in a market. Efforts to extinguish it were supervised by the *wali*, who later issued orders to remove rooftops made of hay to prevent future incidents.[109] Again in the same city, in 1719, people formed a human chain to deliver buckets of water to the scene of conflagration, attempting to prevent the flames from reaching the Umayyad mosque.[110] Overall, though, in areas outside Istanbul fires appear to have occurred less frequently than plagues, famines, or earthquakes. One gets the impression that they were not as much of a problem in cities like Cairo or Damascus, and hence there was no need in these places for a special firefighting unit that would be constantly available for the next occurrence.

Provincial governors may not have kept teams of soldiers ready to deploy in case of fire, but the same priorities that affected their response to famines and plagues were also seen in the aftermath of fires and earthquakes. Disasters of these last two kinds generated population displacement on a far larger scale than plagues and famines. Quakes and fires destroyed villages, urban quarters, and sometimes entire cities instantly, leaving their residents destitute and

with no option to stay. Homeless victims would gather in gardens or in the city's outskirts and set up provisional lodging there in tents and huts. Such, for example, was the case after the earthquakes that shattered Damascus and other cities in Syria in 1759. To look after the homeless, the governor of the province stayed with them for months in the gardens and deployed his soldiers all over the city to protect the vulnerable from theft and other threats.[111] In the aftermath of earthquakes, governors sometimes provided mental support by organizing mass public prayers.[112] Such expressions of governmental concern aside, the primary duty of these state agents in time of disaster was to alert the authorities in Istanbul to the damage and provide the information needed to rebuild the city.

As with other disasters, the easiest kind of relief for the imperial government was reduction of taxes; however, this was not the most efficient solution in circumstances of sudden devastation, as it usually occurred months or even years after the calamity. Tax reassessment was a long-term solution that could be of little help to those with no place to live, who could not even find refuge in mosques or *'imaret*s because many of these were destroyed too. An earthquake in November 1717 damaged extensive sections of the town of Denizli, killing and leaving many residents homeless and starving. A petition the people of Denizli sent to Istanbul about a week later asked for reduction of the *avarız, nüzul*, and other taxes. Some eighty people, including imams, preachers, and madrasa teachers, signed it to testify to the accuracy of the report. A week was a relatively short time for organizing a petition by eighteenth-century standards, but the urgency of the matter served as powerful impetus. The petition must have been received in Istanbul within a few days; but the orders to investigate the matter further – not yet to reduce Denizli's tax rates – were dated some two months later.[113] I could not find when and whether the matter was eventually resolved in favor of the victims. If the state took another two or three months to conduct the survey and decide on a tax break, it would be a relatively quick turnaround for such matters. To quote another case, an earthquake in Sayda (Sidon), in October 1759, killed seven to eight thousand people, destroyed houses and mosques, and buried many others under the rubble. A petition was sent to Istanbul, asking for tax reductions for that year and the next. The petition itself was signed only six weeks later,[114] and we may assume that more weeks elapsed before the authorities moved to act upon it. In yet another example, from the mid-1790s, a petition from Çorum (240 kilometers northeast of Ankara) eventually resulted in a three-year tax reduction, but this was granted six months after the earthquake, which brought down mosques, shops, houses, and other structures in that town and caused the population to scatter. The

reduction of taxes had little effect: Six years later many of the victims were still poor and needed assistance. A fire that burned down the markets in the same town in 1800 once again drove the inhabitants, Muslims and *dhimmis*, to flock to the *maḥkama* and ask the qadi to submit another petition on their behalf to Istanbul.[115]

While reduction of taxes comfortably fitted the reactive pattern of Ottoman disaster relief, responses to earthquakes usually extended beyond such modest measures and involved public works designed to rebuild the stricken city, or at least parts of it. Reconstruction could be small in scale and focus on a damaged mosque or madrasa; or it could be a massive project that entailed elaborate operational and budgetary planning and required a labor force of hundreds or even thousands of workers. At times, the state launched a preliminary survey of the affected area – the first phase of a rebuilding venture – within days of the earthquake. This happened, for example, after a series of shocks in Damascus that ended in early 1760, a project that I will discuss in detail later. At other times, however, the government would allow an area to remain in ruin and disrepair for a long period, sometimes even years. In a study of earthquakes in the Ottoman Balkans, Rossitsa Gradeva has shown that villages and city quarters could lie in ruin for years, with no attempt made to rebuild or repopulate them.[116] The reason why disaster areas were treated differently is not always clear, and some possible explanations are suggested later. As we shall see, the state's choice to rebuild certain structures and not others derived from interests that had little to do with religious divisions.

The Ottomans did, at times, use disasters as an opportunity to reassert Islam as the religion of the state and demarcate clear borders between religions. This happened, for example, after the Great Fire of Istanbul of 1660. At the time, military and political crises led the dominant person in the palace, Turhan Hatice Sultan (d. 1683), the mother of the reigning Sultan Mehmet IV, to turn to the Kadızadeli reform movement. The leaders of this movement, which first appeared in the early seventeenth century, sought to transform the Islam practiced in the empire to one free of innovations, a pure form as existed in the days of the Prophet Muḥammad. They believed this would help restore Ottoman greatness. The influence this revivalist movement acquired in court was one factor prompting Ottoman officials to turn to the Islamization of space as a means for asserting authority. After the fire, Islamization became the "common standard of authority" for Turhan, Grand Vizier Fazıl Ahmet Paşa, and the preacher to the sultan, Vani Mehmet Efendi. Thus when the fire burned to the ground large areas in Eminönü and Galata, where many Jews and Christians had lived, the three and their supporters saw an

opportunity to advance their interests through the Islamization of non-Muslim spaces. Jews who used to live in the Eminönü area were forced to settle elsewhere, and the Valide Sultan Mosque complex (now the New Mosque, Yeni Camii) was erected there instead. Furthermore, Christians were allowed to reclaim some of their destroyed property, but prohibited from rebuilding their churches. Eminönü after the fire transformed radically from a neighborhood populated primarily by non-Muslims to one where the state reclaimed ownership and the presence of Islam was made apparent by the Qur'anic inscriptions adorning the mosque complex.[117]

Islamization of the urban landscape following the fire of 1660 and discrimination against Christians and Jews were not, however, a typical Ottoman response. Rather, they reflected the great influence of the Kadızadelis in the capital around that time. That influence was felt in other areas too: the sale of alcohol was prohibited, taverns were shut down, and churches and synagogues were destroyed or prevented from being rebuilt. Overall, the reign of Mehmet IV, an ardent adherent of the Kadızadeli interpretation of Islam, was characterized by mass conversions and military campaigns in the name of Islam in Christian Europe. But the era of Mehmet IV marked a departure from common Ottoman practices, not the norm.[118] Outside the capital and in earlier or later periods, there were other interests and considerations that determined Ottoman governance of its non-Muslim populations, and reactions to earthquakes and fires.

To examine closely the set of decisions and priorities that guided the state in postearthquake reconstructions – and hence, more broadly, in its treatment of its subjects – I now return to the quake that opened this chapter, the one that woke Mikha'il Burayk in the middle of the night, in October 1759. Soon after the chain of earthquakes in Damascus ended, the state launched an ambitious plan to rebuild the city. The project was remarkable both in its scope and in the amount of documentation it generated. The records on it include the first 40 pages of a 900-page register (see Figure 2.4),[119] as well as various other loose documents, individual orders, and petitions sent from Damascus to Istanbul and preserved in the Ottoman archives. The project represents fairly well the practice of rebuilding an Ottoman city after an earthquake, as other less extensively documented cases confirm.[120] Accordingly, if an area damaged by seismic activity was important enough for the Ottomans to fix, the state would order it surveyed and assign an official to assess the damage and the costs needed for restoration. Then, the state would appoint a chief architect to oversee the project. The latter would conscript workers and, in more extensive projects, appoint people to oversee the work in

different sectors of the town. When the state did not take the initiative to rebuild, quake victims could still petition for its intervention, or at least for permission to carry out the rebuilding themselves with partial or full state funding. But in Damascus and surrounding towns the rebuilding of the city took off without such a petition, for reasons I clarify later (although subsequently, as the crisis continued with plagues and famine, the inhabitants did send pleas to Istanbul).

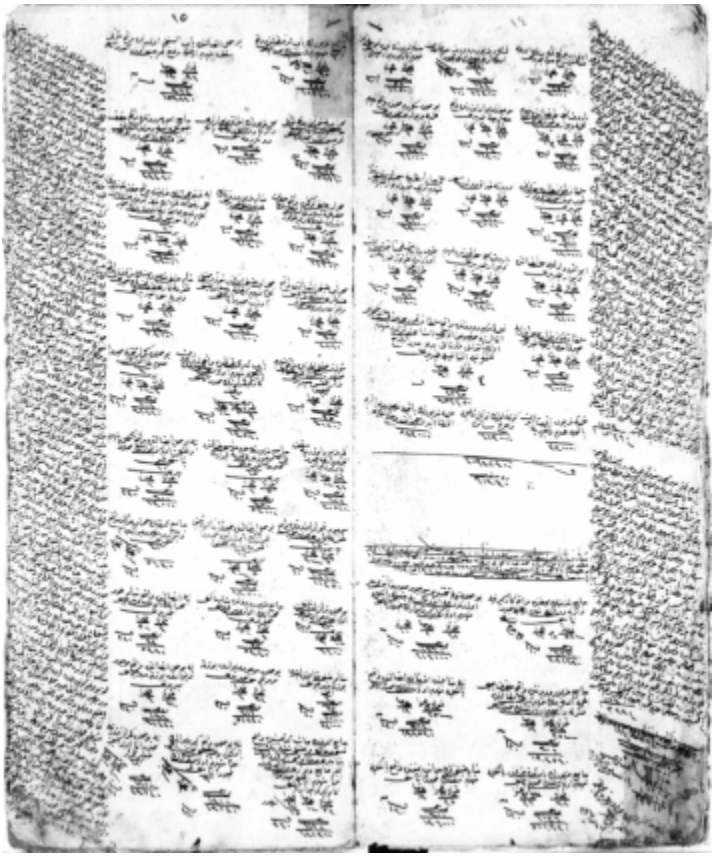

Figure 2.4. A section from the Ottoman work orders to rebuild Damascus after the 1759–60 earthquakes. *Source:* BOA, MMD 3160. Courtesy of the Prime Minister's Office Archives, Istanbul.

At first, the evidence leaves one with an initial, and somewhat misleading, impression that in selecting the objects for rebuilding, the state gave preference to renovating structures and assisting institutions designed primarily to serve Muslims. The forty-page file mentioned previously comprises a set of work instructions issued to officials who were present in or sent to Damascus for the purpose. The three most frequently mentioned buildings are the Umayyad, Selimiye, and Süleymaniye mosques. At least one of the three is featured in each

of the work orders copied into the file, and many entries discuss the need to renovate all three, or other, smaller, mosques.[121] In addition to mosques, the Ottomans planned the reconstruction of madrasas and soup kitchens, both institutions that served Muslims only and were usually located in complexes that also included a mosque and sometimes a hospital.[122] Similarly, after an earthquake struck Istanbul in 1766, resources were devoted mostly to the rebuilding of mosques, madrasas, *hamam*s, and the palace.[123]

Appended to the work orders was a list of no fewer than 430 structures that needed full or partial repair, to be financed by the Ottoman treasury.[124] The items were arranged in categories, according to the mosque they were part of or in whose vicinity they were located, with each entry specifying measurements in length, width, and surface area and, where applicable, the cost. The first of these is the Süleymaniye mosque. It has seventy-three entries: fifteen relating to the mosque itself; twenty-four to sections of the mosque or adjacent buildings, such as walls (*divar*), corridors (*dehliz*), gates (*kapı*), and domes (*kubbe*); two to religious schools; two to soup kitchens; and the rest to parts of unspecified buildings.[125] Next are the Selimiye and its environs. Of eighty-seven structures, thirty were directly related to the mosque; seventeen to adjacent walls, gates, and domes; three to soup kitchens; six to the nearby Muhyi al-Din al-‘Arabi (Ibn ‘Arabi) tomb; and the rest unspecified.[126] The part of the register dealing with the Umayyad mosque and its surroundings contains 148 entries, of which 97 deal specifically with the mosque. Most of the rest probably relate to it as well, although this is not explicitly specified.[127] On the whole, a sizable segment – possibly a majority – of the works to be carried out according to the register focused on mosques and structures related to them.

Other sources on the postearthquake renovations in Damascus also focus on the rebuilding of mosques. The city’s mosques appear in a series of work orders written in Istanbul several months after the earthquake. Two decrees required the dispatch from Istanbul of a chief architect, one Hacı Ahmet, to oversee the reconstruction of the Sultan Süleyman mosque, a project that was to cost 18,932 *guruş*.[128] Another document describes a mosque that was damaged so the five daily prayers could not be held there; and several walls within its complex, its dome, an adjacent *waqf* probably serving as lodging for the poor, and a *hamam* that were all destroyed. The state appointed an architect to supervise a team of workers to fix the damages. Further, the Porte issued firmans concerning the required renovations of forty mosques and forty *hamam*s.[129] The citywide restoration project was also mentioned by a few Damascene residents, who witnessed the

events and noted that the authorities sent officials to rebuild the city's mosques.[130]

The emphasis on rebuilding mosques and adjacent structures seems obvious, then, and rather expected. But mosques, religious schools, and soup kitchens were not the only objects of postearthquake state-funded renovations. The work orders compiled for Damascus in 1760 note that the state intended to fix other structures as well. For example, the title of one section in the reconstruction file refers to "the expenses of building and repairing the citadel of Damascus, the noble Umayyad mosque, the white minaret, the noble mosque of the deceased Sultan Süleyman Han, several schools and soup kitchens, and other places in the above-mentioned city."[131] Other work orders use similar language to describe what needed to be done.[132] In the register mentioned, the citadel (*kal'e-i Şam*), headquarters of the provincial governor, is repeatedly mentioned along with the three major mosques and other religious institutions.[133] Similarly, there are orders to fix damage caused to gardens (*bağ* or *bağçe*), shops (*dukkan*), markets (*çarşı*), fountains (*çeşme*), and water conduits (*suyolları*).[134] The list includes thirty-three references to the citadel and its redoubts (*tabiye*), sixteen to storehouses for wheat or barley (*hınta* or *şa'ir anbarı*), ten to various towers (*kule*) that had collapsed, six to military barracks (*kışla*), four to public kitchens (*matbah*), two to mills (*mathana*), and one to a public oven (*furun*).[135] Elsewhere, *hamam*s and roads and bridges (*ma'abir*) are also mentioned.[136]

Although primarily used by Muslims – the majority of the population – there was nothing intrinsically Islamic about these institutions. Non-Muslims too had access to grain storehouses, mills, public ovens, roads, and bridges. More significant, the priorities the state set for rebuilding show a preference for structures that did not carry a clear religious function. One decree, issued on 27 April 1760, required the ranking of places awaiting renovation according to the amount of state funds involved and the urgency of getting the work done. The top item was the citadel; the Umayyad, Süleymaniye, and Selimiye mosques followed.[137] Such an order of priorities was not unique to the Damascus reconstruction project of 1759–60. An earthquake in Foça (70 kilometers northwest of Izmir) on 2 July 1709 completely destroyed the old citadel, a wall in the port (*liman*), six towers located between the port and the arsenal (*tophane*), the Fatih Sultan Mehmet mosque, and several other mosques. In the order issued to restore more than thirty structures, first priority was given to the citadel and the port.[138]

An array of motivations informed the Ottoman rebuilding priorities. Alongside a perceived responsibility for maintaining social welfare, a

prime consideration was concern for sultanic property. In Damascus and elsewhere, sultans built mosque complexes and other foundations, and bestowed their patronage on those they inherited from earlier Islamic states. Among the largest and wealthiest forces in Ottoman urban society, such institutions played a key part in disaster relief through hosting displaced people and distributing food and other items to thousands of affected survivors. The large *waqf*s were Islamic charitable foundations, but unlike charity offered privately, which was a pious act intrinsically tied to one's level of religiosity, the sultanic foundations also promoted regal beneficense, which explains why, when damaged, sultans were eager to restore them. Furthermore, the *waqfiyya*s (endowment deeds) of those large foundations dictated their structure and functions. And since conditions specified in *waqfiyya*s were in principle immutable, imperial *waqf*s were likely the most stable institutions in Islamic society. As such, they played a key role in returning to normalcy in the aftermath of disasters by offering physical and psychological refuge when uncertainty and chaos reigned. Therefore, they were among the very first targets to be renovated.[139]

Some structures selected for state-sponsored renovation in Damascus were sultanic property; the three big mosques and the citadel are obvious examples, and there may have been others about which we cannot be sure – the Ottoman registers do not usually reveal whether a certain market, water fountain, or school was founded or supported by a member of the Ottoman household. As the center of authority in the empire shifted from the sultan to the bureaucracy and the Janissaries in the seventeenth century, considerably fewer monuments were erected. But the upkeep of existing ones was nonetheless important because such institutions allowed the state to assert its authority where chaos could easily develop, to communicate with its subjects, to manipulate the public image of charity, and thus of religion in general, to suit various interests, and to keep track of popular trends through a network of agents who operated in the public spaces of a city.

Damascus, like any Ottoman town, was made up of public, private, and semiprivate areas. The first comprised places that were not residences, which one could enter or pass through freely; the second, a place where uninvited persons were not allowed, such as homes; and the third, the space that connected the public and private spheres and included courtyards, paths, and walkways linking residences, and any property placed in those areas and owned or used by more than one person or family. The division appears to be academic; most probably, the inhabitants of a place did not use such terms to delineate their

physical spaces. Still, they understood it well and carefully followed the social rules that such a division implied. In one sense, it was the state that defined the boundaries between public and private: Everywhere the government and its agents operated was by definition either public or open to state agents only (e.g. barracks, the citadel); the areas that were off limits for them were private or semiprivate. Such a distinction between domains was recognized by Muslim scholars of the Ottoman period. In their fatwas, *şeyhülislam*s discussed the rights and obligations of one as he or she moved from private to public areas and back.[140]

This leads us to yet another principle that guided Ottoman reconstruction decisions: careful regard for a public-private division. One feature the 430 sites in the Ottoman register for 1759 clearly had in common was their public function. In the aftermath of the Damascus earthquake, the state displayed a commitment to restoring structures and institutions that served the public or were perceived to be part of the public domain. Thus one finds in the register state property (*miri*) and *waqf*s, but no private assets (*mülk*) or residences. Another document that laid out the course of state-sponsored renovations echoes the same principle. First, surveys should be conducted, listing everything that required fixing. These should be sent to Istanbul, and, after approval, work orders in the form of firmans would be issued. Once the instructions had reached Damascus, the architect in charge should promptly assign people to execute them and notify the pasha and the city's notables (*aʿyan ve vücuh-i ahali*). In picking the sites for restoration, the architect should give special and immediate attention to the preservation of *miri* property.[141] In the Damascus earthquake, houses were damaged, destroyed, or left deserted. Some of these were located in the vicinity of the Umayyad, Süleymaniye, and Selimiye mosques, and the officials in charge of the rebuilding were to single out those that were either *miri* or *waqf*, sell the former, and rent out the latter.[142]

While the state underwrote the restoration of buildings that bore a clear Islamic function (mosques and madrasas) and many that did not (citadel and port structures), I could not locate even one structure that specifically served only non-Muslims, such as a church or a synagogue, that was to be restored by the government. Moreover, among the *waqf*s targeted for restoration in the records, none was founded by Christians or Jews. This curious finding seems to lend support to the argument regarding Ottoman principles of privacy. As I have shown earlier, the state did not generally discriminate against Christians and Jews when responding to requests to assuage disaster-generated suffering. The chain of disasters in Syria of the early 1760s

was no exception: A report from February 1765 quotes a petition by the people of Aleppo, who asked for tax reduction because of the calamities their city had suffered from 1758/59 to 1762/63. In response, the government ordered a population survey to determine the number of households (*hane*) remaining in the city; it resulted in reassessment of the non-Muslim population, which led to a decrease in *jizya* revenues by about 75 percent.[143]

Reassessment of taxes did not exclude non-Muslims, and neither did distribution of grain to those suffering from famine. Why, then, were non-Muslims not offered assistance in restoring their damaged communal structures? The answer seems to lie in the very nature of these buildings: In the state's eyes, they represented private rather than public sites. The government saw as its duty the upkeep of public or sultanic buildings in an urban public domain that was also, by definition, Islamic. Although the state did not overlook its non-Muslim subjects, it could not support buildings or institutions that excluded Muslims altogether, since areas that were off limits for Muslims or not intended for their use were not part of the public domain within which the state operated. An institution or a building did not necessarily have to be for Muslim use only to qualify for state-financed renovations, as the presence of storehouses, water fountains, and public ovens in the registers indicates. But a church, a synagogue, or a site designed for the instruction of Christian or Jewish children represented a different category: Their exclusion of the preponderance of society, Muslims, lent them a status as private locations.

Other forms of aid, such as tax reduction and distribution of grain, money, or clothes, were all announced or performed in the public domain – at the courthouse (where responses to petitions were read), on the street, or at a granary, bathhouse, or mosque – they did not require the state to enter the private world of its subjects. In fact, writing a petition to the authorities or appearing at a place where goods were given out free entailed stepping out of one's private realm physically and mentally, and taking one's personal miseries – otherwise concealed within the boundaries of the home or neighborhood – into the public arena. This meant giving up the anonymity the private space protected and exposing one's situation to public scrutiny. Such a system of state or even communal patronage, where people had to take the initiative and step forward with their needs to receive help, had prevailed in Middle Eastern societies before and during Ottoman times.[144] The state's reluctance to intervene in the rebuilding of private homes did not mean that it was oblivious to the needs of its subjects. On the contrary, giving priority to reconstructing the citadel, mosques, and soup kitchens enabled the

local government to resume its responsibilities, including the operation and support of charitable foundations. Rather than rebuilding private residences and thereby invading the private domain, the state aimed to restore its presence in and patronage over the city, so that its inhabitants could again approach it in public and ask for support.

The Ottoman state, then, did not reconstruct buildings with no public function, or at least did not plan for such renovations, according to extant accounts. This raises the question of what people expected of their government. In their fatwas, *şeyhülislams* responded to queries by owners of property (*mülk*) about rebuilding after a destructive fire. Without exception, the expenses fell on the landlords.[145] Theoretically, such queries could have been about ownership rather than privacy; we do not have the texts of the questions themselves, and the laconic language of the fatwas makes it difficult to tell. But the fatwas do seem to reveal something about what the denizens of Ottoman cities expected the government to do for them, and about popular views of the line separating public from private. By and large, Ottoman subjects had few expectations of their government: a fair procedure in court, supervision of market prices, and ensuring availability of food, especially in times of shortage. They also expected the authorities not to step into private territory, not even when personal misfortune occurred. Lending a hand was first and foremost the duty of the family, community, or neighborhood; turning to the state for help was a last resort.[146] Still, the authorities, from the sultan down to local officials, were regularly involved in charitable giving that was gratefully received by the needy. One may therefore assume that, under exceptional circumstances, if a sultan or a governor proposed to reconstruct private homes destroyed by earthquake or fire, the owners would not mind the temporary invasion of their privacy. Yet there seems to have been no expectation that the state would initiate such measures, and in Damascus in 1760 there are no indications that it did.

Urban Planning, New Opportunities

The Ottoman reluctance to invade private spaces and to devise rebuilding plans that would alter the preexisting urban setting signaled an approach to disaster recovery that was notably different from that of contemporary or earlier Western European states. The responses of Western European cities and states to natural calamities in early modern times reflected social changes that had been under way since the Black Death, as outlined in Chapter 1. Such developments necessitated government invasion of the private domain

and interference with people's daily routines. In 1539, the king of France, Francis I, issued an ordinance for Paris that prohibited the storage of excrement in homes and courtyards or its disposal in the streets, mandated the installation of cesspools, and imposed fines on those who continued to raise farm animals within city walls.[147] Similar regulations were issued in other cities, among them Berlin, Breslau, Düsseldorf, Frankfurt, Hamburg, and Vienna.[148] Beyond indicating an increasing awareness of hygiene and the impact of private-domain routine on the public, such measures also reflected the authoritarian character of early modern European states and their disregard for privacy.[149] Gradually, authorities there were crossing boundaries and intruding into areas that previously had been off limits.

These shifting concepts of private and public were put to a formidable test on occasions of major disasters, those that destroyed sizable parts of a city and affected many thousands of residents. The rebuilding of London after the Great Fire of September 1666 and of Lisbon after the 1755 earthquake, events I briefly discussed in Chapter 1, were good examples. While in Damascus the state chose to renovate only certain parts and promptly embarked on the task, the rebuilding of London involved comprehensive planning and took markedly longer. Assuming responsibility for London's restoration, King Charles II ensured that land was surveyed and a new grid set for the entire city. The plan of Christopher Wren replaced the medieval landscape of warrens and alleys with wide streets designed for better passage, improved commercial activity, and enhanced government policing of the residents. The rebuilding of London also introduced state and city regulation on matters that the authorities had not interfered with before, such as licensing of the building and design of private homes. In a marked shift from past practices, reconstruction, even when privately financed, had to conform now to the Rebuilding Act, which specified the minutest details of house plans. This, one scholar has suggested, denoted a watershed for privacy, which was gradually redefined in subsequent decades.[150] Government engagement on a similar level occurred in Lisbon too. There, the marquis de Pombal, secretary of state of King José I, coordinated emergency measures and a reconstruction project that included urban replanning and extensive rebuilding that took no heed of the previous functions – private or public – of structures and institutions. In the new Lisbon, wide avenues replaced myriad narrow streets and new sanitary, burial, and building regulations were announced.[151]

Large-scale disasters marked a turning point in the cultural, economic, and social life of cities in Western Europe. For state and

city authorities in the seventeenth and eighteenth centuries, a fire or an earthquake was an opportunity to reshape relationships between rulers and citizens and to introduce new concepts through urban replanning. Employing new building materials and architectural styles could change and sometimes improve living conditions and redefine the division between personal and common spaces in the home. This in turn would affect people's interactions with family members and outsiders, the products they consumed, and how and when they pursued daily activities. The shift from condensed medieval residential neighborhoods to wide streets and open spaces enhanced public hygiene and helped decrease the toll of future disasters. But these new features also curbed the privacy that the seclusion of alleys had once provided and facilitated the entry of state and city agents into areas previously inaccessible to them. People's expectations of their government were gradually transformed as well.

Whether a disaster offered an opportunity for such structural changes depended on several factors, not least the availability of resources and organizational capacities. They also depended on society's norms of privacy, the established role of the state in that society, and people's expectations from the government. The evidence for the reconstruction of Damascus after the 1759 earthquakes leaves no doubt that the Ottoman state had the resources and organizational ability to transform the city's urban landscape had it chosen to do so, just as the British, Portuguese, and other European governments had been doing since the seventeenth century. But in the Ottoman Empire, there are no indications that the norms of private and public, the relationship between them, and the place of the state in the public space had undergone such profound changes as they had in Western Europe.[152] The Ottomans did occasionally make changes to the city landscape after earthquakes and fires, for example, by banning building practices conducive to the spread of fires, and by forcing populations to migrate.[153] Yet even then, the subtle lines that divided a city into public and private domains were left intact, and the time-honored formula of the state-subjects relationship – as well as people's expectations of their rulers – remained unchanged. The aim of postdisaster urban rebuilding in the Ottoman Empire was not to reshape social or political realities; rather, it was to restore predisaster conditions. Adversities such as the Damascus earthquakes offered an opportunity to reassert imperial authority and patronage, not to redefine the relationship between the sultan and his subjects.[154]

Where the state did not intervene, the community stepped in. "Community" could be any social group or association whose members had collective attributes and interests. In an Ottoman urban

context, the term mostly refers to non-Muslim groups, usually joined by their religious faith, which historians have often considered to be socially more cohesive than the society at large. The term may also refer to residents of the same neighborhood, people who regularly attended the same mosque, those whose shops were located in the same khan or market, or people whose apartments shared one courtyard. What all of these had in common – which was also common to Christian and Jewish communities – was that they operated in spaces that were off limits for the state and could thus address needs that the government could not. During and in the aftermath of natural disasters, communities played a vital role in alleviating miseries and caring for the poor and sick. They will be examined in the next chapter.

1 Sections of this chapter are taken from my IJMES article, "Ottoman urban privacy."

2 Mikha'il Burayk, *Ta'rikh al-sham* (Damascus: Dar Qutayba, 1982), 78–80.

3 Hanioğlu, *A Brief History*, 25; see also Marcus, *Eve of Modernity*, 39–48; Gül Akyılmaz, "Osmanlı devletinde reaya kavramı ve devlet-reaya ilişkileri," in Güler Eren, ed., *Osmanlı* (Ankara: Yeni Türkiye Yayınları, 1999), 4:40–54.

4 For an overview of the status of non-Muslims in the Ottoman Empire, see Masters, *Christians and Jews*, 16–40.

5 A religious agenda did, at times, shape responses to disasters. For one such example, see Marc Baer, "The Great Fire of 1660 and the Islamization of Christian and Jewish space in Istanbul," *IJMES* 36 (2004), 2:159–81. As I shall argue later, this was an exception rather than the norm in Ottoman handling of disaster recovery.

6 The Pact of ‘Umar is an alleged agreement the second caliph, ‘Umar ibn al-Khattab, had made with Christians, by which the latter agreed to undertake a series of limitations (such as not to build new houses of worship, dress like Muslims, or hold public religious ceremonies) in exchange for protection. There are several versions of this document, and despite its importance in Islamic jurisprudence, its origins are of dubious veracity (Mark Cohen, “What was the Pact of ‘Umar: A literary-historical study,” *Jerusalem Studies in Arabic and Islam* 23 [1999], 100–57).

7 Masters, *The Arabs*, 48–9.

8 See, for example, Elyse Semerdjian, “Naked anxiety: Bathhouses, nudity, and the *dhimmī* woman in 18th-century Aleppo,” *IJMES* 45 (2013), 664–9.

9 For more on the connection between the two, see Alan Mikhail, “The nature of plague in late eighteenth-century Egypt,” *Bulletin of the History of Medicine* 82 (2008), 2:249–75.

10 Patrick Russell, *A Treatise of the Plague* (London: G. G. & J. Robinson, 1791), 9–59; Burayk, *Ta’rikh*, 86. For other examples, see Marcus, *Eve of Modernity*, 128.

11 Kamil bin Ḥusayn al-Ghazzi, *Kitab nahr al-dhahab fi ta’rikh ḥalab* (Aleppo: Dar al-Qalam al-‘Arabi, 1992), 3:229; Ferdinan Tawtal, *Watha’iq tarikhiyya ‘an ḥalab* (Beirut: al-Maṭba‘a al-Kathulikiyya, 1958–63), 1:33.

12 ACCM, J914, letter dated 1 September 1757.

13 Mikhail, *Nature and Empire*, 216.

14 Al-Ghazzi, *Nahr*, 3:228.

15 James Grehan, *Everyday Life and Consumer Culture in 18th-Century Damascus* (Seattle: University of Washington Press, 2007), 86–7; al-Budayri, *Ḥawadith*, 41.

16 Al-Budayri, *Ḥawadith*, 52.

17 Ibid., 73–4, 97–8, 128, 157.

18 Ibid., 129.

19 NA, SP 110/58, report dated 24 September 1770.

20 Marcus, *Eve of Modernity*, 213–14.

21 In Trabzon, judges granted rent reductions to operators of public baths, who suffered from loss of clientele as a result of plague epidemics. The court there was generally responsive to requests for financial assistance. See Ronald Jennings, "Plague in Trabzon and reactions to it according to local judicial registers," in Heath Lowry and Donald Quataert, eds., *Humanist and Scholar: Essays in Honor of Andreas Tietze* (Istanbul: Isis, 1993), 27–36.

22 On the practice of Ottoman petitions, see Yuval Ben-Bassat, *Petitioning the Sultan: Protests and Justice in Late Ottoman Palestine 1865–1908* (London: I. B. Tauris, 2013), 28–33. I use the Sublime Porte *(bab-ı ali)* or just the Porte – the name of the gate at the entrance to the grand vizier's palace – to refer to the Ottoman government in Istanbul in general.

23 BOA, C. DH., 14308.

24 BOA, TSMAD, 01341/0006.

25 Tawtal, *Watha'iq*, 1:41. The *naqib al-ashraf* was the head of the class of nobles who claimed descent from the Prophet Muḥammad.

26 Al-Ghazzi, *Nahr*, 3:232–4.

27 Al-Budayri, Ḥ*awadith*, 160.

28 Ibid., 41.

29 Ibid., 63–4.

30 Mikhail, *Nature and Empire*, 217.

31 Burayk, *Ta'rikh*, 41; writing in the mid-eighteenth century, Burayk mentioned that this order was about two hundred years old and still upheld.

32 Al-Ghazzi, *Nahr*, 3:230.

33 Giovanni Mariti, *Travels through Cyprus, Syria and Palestine: With a General History of the Levant* (Dublin: Messrs. P. Byrne and A. Grueber, 1792), 1:287–93.

34 Richard Tyron, *Travels from Aleppo to the City of Jerusalem, and through the Most Remarkable Parts of the Holy Land, in 1776* (Glasgow: J. & M. Robertson, 1785), 7.

35 G. A. Olivier, *Travels in the Ottoman Empire, Egypt, and Persia* (London: T. N. Longman and O. Rees, 1801), 2:83–4.

36 Ibid., 2:245–6.

37 J. A. Peyssonnel and R. L. Desfontaines, *Voyages dans les régences de Tunis et d'Alger* (Paris: M. Dureau de la Malle, 1838), 1:228–30.

38 Although I have not found direct evidence for this, it was probably not by chance that quarantine and other preventive measures were introduced by local Ottoman officials in cities with a significant European presence.

39 Varlık, "Disease and empire," 222. André Raymond has argued that the moving of slaughterhouses and tanneries was a factor of the natural growth of Ottoman cities, seen throughout the empire already in the sixteenth century (André Raymond, "Le déplacement des tanneries à Alep, au Caire, et à Tunis à l'époque ottomane: Un indicateur de croissance urbaine," in *La ville Arabe, Alep, à l'époque ottomane [XVIe-XVIIIe siécles]* [Damascus: Institut Français de Damas, 1998], 128–37).

40 Boyar and Fleet, *Istanbul*, 137–9.

41 This process had already begun in the sixteenth century. See Varlık, "Disease and empire," 223.

42 François Tott, *Memoirs of Baron de Tott* (New York: Arno Press, 1973), 4:122–3.

43 Mariti, *Travels*, 1:261.

44 Russell, *Aleppo, 1794*, 1:43. See a description of a similar canal-cleaning project in Gallagher, *Medicine*, 15–16.

45 Mikhail, *Nature and Empire*, 34–5.

46 Al-Budayri, Ḥ*awadith*, 52.

47 On moral economy and the Ottomans, see Rhodes Murphey, "Provisioning Istanbul: the state and subsistence in the early modern Middle East," *Food and Foodways* 2 (1988), 218.

48 BOA, MMD, 14680:3, 8.

49 BOA, MMD, 7430:8–10; the top part of p. 8, where the story of the disaster itself is told, is missing. According to the remaining section of the text, the calamity left many neighborhoods in the city and surrounding villages deserted for quite some time.

50 BOA, MD, 22/38/82 (transcribed in Coşkun Yılmaz and Necdet Yılmaz, *Osmanlılarda sağlık: Health in the Ottomans* (Istanbul: Biofarma, 2006), 2:62).

51 BOA, MD, 33/181/359 (transcribed in ibid., 2:74).

52 BOA, İE. SH., 69, a document from 1667 (transcribed in ibid., 2:163).

53 BOA, İE. SH., 53 (transcribed in ibid., 2:192).

54 Examples include the appointment in 1762 of an *ağa* in the Olgun citadel in lieu of one who died of the plague (BOA, C. AS., 12194); and the appointment of a new governor in Adana after a locust attack led to famine and acts of plunder in 1792 (BOA, HAT, 188/8907).

55 White, *Climate*, 82–4, 149, 156.

56 From the late sixteenth to the mid-seventeenth century, the empire suffered from rebellions and severe cold spells that upset its system of food supply to the provinces. All evidence for the system of famine relief I describe here that I managed to find dates from the second half of the century, and mostly from the eighteenth century. See also ibid., 82–5, 249–81.

57 BOA, C. BL., 6765; MMD, 10319:27; *keyl* was an Ottoman measuring unit used primarily for crops (Cengiz Kalek, "Kile," *TDVİA*, 25:568–71).

58 BOA, MMD, 10319:35.

59 Ibid., 10319:14.

60 BOA, Ahkam Halep, 1:187.

61 BOA, C. NFD., 1836.

62 BOA, C. AS., 37877.

63 See, for example: BOA, C. ML., 1092, 2151; C. İKT., 2215.

64 I base this conclusion on the very few references I found in the archives to the state's initiating action before a petition asking for it was received in the capital. The rebuilding of cities in the aftermath of earthquakes and fires was a notable exception to this rule.

65 White, *Climate*, 82 n.38.

66 BOA, C. SH., 1204. The petition was signed on 1 Shawwal 1070 and the decision as recorded on the top right margin of the same document is dated 21 Shawwal 1070 (9–29 June 1660).

67 BOA, İE. SH., 76.

68 See, for example: BOA, İE. SH., 173 (June 1696); İE. SH., 122 (May 1697); İE. SH., 125 (April 1698); İE. SH. 1242 and İE. SH. 159 (March 1699); and İE. SH. 107 (June 1699). For more examples, see Yılmaz and Yılmaz, *Sağlık*, 2:218–29.

69 Examples include: BOA, İE. SH., 141 (Gümülcine, 1705); İE. SH., 150 (Ankara, 1712); İE. SH., 160 (Isparta, 1712); İE. SH., 182 (Yenişehir and Tırhala, 1719); İE. SH., 603 (Amasra, 1726); İE. SH., 1285 (Adana, 1740); C. ML., 21977 (Larende, 1742); C. ML., 1262 (Diyarbakır, 1760); C. ML., 12456 (Istanbul, 1783); C. ML., 28260 (Urfa, 1789); C. ML., 4218 (Adana, 1793); and C. ML., 16803 (Bosnia, 1798).

70 Varlık, “Disease and empire,” 172, 202–4.

71 Ibid., 150, 173–6, quote from 150. Large segments of sixteenth-century European society were, quite likely, more literate than their Ottoman counterparts; thus linking written theory and actual practice is somewhat more plausible for the former society than the latter.

72 Mehmet Ertuğrul Düzdağ, *Şeyhülislam Ebussuud Efendi fetvaları ışığında 16. asır Türk hayatı* (Istanbul: Enderun Kitabevi, 1972), question 913.

73 Ibid., questions 395, 754, and 888.

74 Sam White has reached a similar conclusion. See Sam White, “Rethinking disease in Ottoman history,” *IJMES* 42 (2010), 4:549–67.

75 Aḥmad al-Ḥamawi, “Al-Durr al-maknun fi al-kalam ‘ala al-ṭa‘un,” Ms. Bağdatlı Vehbi 2105 in SL, 2–18; Ilyas ibn Ibrahim al-Yahudi, “Risala bi-majannat al-ṭa‘un wa-l-waba’,” and Ibn Ḥajar al-Ḥaytami al-Makki, “Maqala fi bayan al-firar min al-ṭa‘un wa-l-waba’,” Ms. Esad Efendi (EF) 2483 in SL, 29–45; Maḥmud al-Bayluni al-Ḥalabi, “Khulaṣat ma taḥaṣṣala ‘alayhi al-sa‘un fi adwiyat daf‘ al-waba’ wa-l-ṭa‘un,” Ibn Kamal al-Ḥanafi, “Risala fi al-ṭa‘un,” and al-Ḥanbali, “Taḥqiq,” Ms. EF 3567 in SL, 2–19, 22–65.

76 Aḥmad bin Isma‘il, “Risale-i ṭa‘un,” Ms. Giresun Yazmala 126 in SL, 114.

77 Lowry, “Pushing the stone,” 103.

78 Charles Forster and F. H. Daniell, *The Life and Letters of Ogier Ghiselin de Busbecq* (London: C. Kegan Paul, 1881), 1:333–4.

79 Ibid., 1:334.

80 White, *Climate*, 89.

81 One example of such a standard formula is found in BOA, İE. SH., 150, a document describing the outcome of plague in Nenek, a village near Ankara, in 1712: *Ankara kazasına tabi Nenek karyesinin altı hanesi olup ve arz olunan Ya'kup karyasının dahi bir hanesi olduğu mukayyeddir hala Nenek karyesi ahalileri meclis şer'e varup karyemizin altı hanesi olup lakın bi-amr allah ta'ala ta'un isabet etmekle ekseri fevt ve bakı kalanlar dahi perişan olmakla*... (In the village of Nenek in the province of Ankara there were six households, and in the village of Ya'kub there was another household registered. Now the people of Nenek came to the court saying "there were six households [registered] in our village but due to the God-ordained plague most of [the people making up those households] have died and the remaining are in disarray" ...); in other documents, the phrase *perakende ve perişan* (scattered and in disarray) is used to convey the desolate state of an area affected by plague or famine. For similar instances, see İE. SH., 120, 122, 124, 125, 128, 133, 134, 149, and 190.

82 BOA, İE. SH., 107. I was unable to find the original petition.

83 BOA, İE. SH., 149. The *avarız* were extraordinary taxes collected in cash, often interchangeable with *nüzul*, or taxes in kind. *Avarız hane* were the household units computed for their collection (Halil Sahillioğlu, "Avarız," *TDVİA*, 4:108–9).

84 BOA, İE. SH., 190.

85 BOA, C. ML., 21977 is a petition from residents of villages in the Larende province (now Karaman), who in 1742 asked for a tax reduction as many from their area had fled as a result of a recent famine and plague. For more such examples, see C. ML., 1262 and 4218.

86 It is possible that the Ottomans also saw tax remissions as an incentive to prevent people from fleeing disaster areas, as people supposedly knew staying would result in a long-term tax reduction for them. I have not found evidence for this, and at least in some instances using tax breaks as an incentive would definitely not have worked given the utter destitution of survivors who had not fled simply because they could not afford to flee.

87 Tezcan, *Second Empire*, 16–17; Linda Darling, *Revenue-Raising and Legitimacy: Tax Collection and Finance Administration in the Ottoman Empire, 1560–1660* (Leiden: E. J. Brill, 1996), 169–85.

88 BOA, TSMAD, 01341/0003-4, 6–7.

89 Minna Rozen, *Ha-kehillah ha-yehudit bi-yerushalayim ba-me'ah ha-17* (Tel Aviv: Tel Aviv University and Misrad ha-Bitaḥon, 1984), 1–3.

90 Mikhail, *Nature and Empire*, 149–60.

91 BOA, MD, 40/654.

92 Mikhail, *Nature and Empire*, 202, 214–15, 230–34.

93 BOA, C. BL., 6765; MMD, 10319.

94 BOA, C. NFD., 1836.

95 BOA, C. AS., 18929; C. BLD., 4800; C. BLD, 3931; C. ML., 1092.

96 BOA, TSMAD, 09655/001.

97 BOA, İE. SH., 141.

98 BOA, İE. SH., 191 (transcribed in Yılmaz and Yılmaz, *Sağlık*, 2:283–4). The document was written in 1730 and quotes a similar case from Aleppo dated from April 1719 as precedent for reducing *jizya* rates.

99 For *jizya* reduction after a plague in Bosnia in 1783, see BOA, C. ML., 24762. For other examples: C. ML., 4218 (1793); C. ML., 3047 (1796).

100 Thus, a decree from 1729 orders the immediate shipment of barley and millet to the Mudanya province. It indicates that the area had regularly received supplies from Istanbul, but because the ships were unable to sail that year (for an unspecified reason), the province had been suffering from famine (BOA, C. BLD., 3931).

101 E.g., as BOA, C. ML., 28549 suggests, the state knew that plague broke out in Damascus after the earthquakes there in late 1759. This is an understudied point that deserves further inquiry.

102 For examples of fires in the capital attributed to God, see BOA, C. BLD., 496 (1766) and C. BLD. 4624 (1751).

103 Boyar and Fleet, *Istanbul*, 82–8. For examples of fires in Istanbul, see Mustafa Selâniki, *Tarih-i Selâniki* (Istanbul: İstanbul Üniversitesi Edebiyat Fakültesi, 1989), 99–100 (1568), 114–5 (1574); Mustafa Naima, *Tarîh-i Naima* ([Istanbul]: Matbaa-ı Âmire, 1864–6), 3:166–8 (1633), 381 (1645); ʻİsa-zâde, *ʻİsa-zâde tarihi: Metin ve tahlil* (Istanbul: İstanbul Fetih Cemiyeti, 1996), 64–5 (1660); Raşit Efendi, *Tarîh-i Raşit* (Istanbul: 1865), 1:353 (1679), 2:119–20 (1690); Ahmed Vasıf Efendi, *Mahasin ül-asar ve hakaik ül-ahbar* (Cairo: Matbaa-ı Bulak, 1830), 1:16–9 (1753).

104 BOA, C. BL., 6385; for more on firefighters, see Reşad Ekrem Koçu, *Yangın var!: İstanbul tulumbacıları* (Istanbul: ANA Yayınevi, 1981), 17–120; and Kemalettin Kuzucu, "Osmanlı başkentinde büyük yangınlar ve toplumsal etkileri," in Eren, ed., *Osmanlı*, 5:678–97.

105 Minna Rozen and Benjamin Arbel, "Great fire in the metropolis: The case of the Istanbul conflagration of 1569 and its description by Marcantino Barbaro," in David Wasserstein and Ami Ayalon, eds., *Mamluks and Ottomans: Studies in Honour of Michael Winter* (London: Routledge, 2006), 147.

106 Hatice Arslan-Sözüdoğru, *Müneccimbaşı als Historiker: Arabische Historiographie bei einem osmanischen Universalgelehrten des 17. Jahrhunderts: Gāmiʻ ad-duwal* (Teiledition 982/1574–1082/1672) (Berlin: Klaus Schwarz, 2009), 293.

107 Descriptions of houses provided by European visitors confirm this. See Pedro Teixeira, *The Travels of Peter Teixeira from India to Italy by Land* ([London]: 1710), 68–9; Cornelis de Bruyn, *A Voyage to the Levant or, Travels in the Principal Parts of Asia Minor, the Islands of Scio, Rhodes, Cyprus, &c.* (London: Jacob Tonson and Thomas Bennet, 1702), 238–9; Johannes Aegidius van Egmond, *Travels through Part of Europe, Asia Minor, the Islands of the Archipelago; Syria, Palestine, Egypt, Mount Sinai, &c.* (London: L. Davis and C. Reymers, 1759), 2:337; Richard Pococke, *A Description of the East: And Some Other Countries* (London: 1743), 118; Domenico Sestini, *Voyage de Constantinople a Bassora, en 1781, par le Tigre et l'Euphrate* (Paris: Dupuis, 1798), 271; and Charles Perry, *A View of the Levant: Particularly of Constantinople,*

Syria, Egypt, and Greece (London: T. Woodward, 1743), 141.

108 Ahmed Vasıf Efendi, *Mahasin*, 1:29, 36, 43; Cabı Ömer Efendi, *Cabi tarihi (tarih-i Sultan Selim-i Salis ve Mahmud-ı Sani)* (Ankara: Türk Tarih Kurumu Basımevi, 2003), 2:899–900; Boyar and Fleet, *Istanbul*, 77–9.

109 Al-Ghazzi, *Nahr*, 3:204.

110 Ibn Kannan, *Yawmiyat*, 304.

111 Burayk, 78–80. The practice of arranging for temporary housing for earthquake and fire victims would develop into a typical governmental first response in later disasters, in Turkey and elsewhere. For example, tent and caravan cities were set up to accommodate the victims of the San Francisco earthquake of 1906 (Charles O'Connor et al., *San Francisco Relief Survey: The Organization and Methods of Relief Used after the Earthquake and Fire of April 18, 1906* [New York: Survey Associates, 1913], 69–89). The Turkish government and the Red Crescent set up a tent city after the earthquakes of 9 and 23 October 2011 in Van (Ferit Aslan, "Türkiye'nin kaderi Çadırkent," *Hürriyet* 24 October 2011, http://www.hurriyet.com.tr/gundem/19068542.asp, accessed 3 August 2014.

112 After the 1759 earthquakes in Damascus, for example, 'Abdallah Pasha ordered a three-day fast and invited everyone to participate in a mass prayer (al-Budayri, *Ḥawadith*, 224–5).

113 BOA, C. ML., 31320. The earthquake took place on 14 Dhu al-Ḥijja 1129 (18 November 1729). The petition is dated *evahir* (the end of) that month. The orders to investigate are from Ṣafar 1130 (January 1730).

114 BOA, C. DH., 11626. The earthquake hit on 9 Rabi‘ al-Awwal 1173 (30 October 1759), and was probably the same one that occurred in Damascus that day. The petition was dated 15 Rabi‘ al-Thani 1173 (5 December 1759). For an image of this petition, see Figure 4.2.

115 BOA, C. NFD., 192. Orders are dated 3 Jumada al-Awwal 1209 (26 November 1794). The second petition is BOA, C. DH., 1802, dated 29 Ṣafar 1215 (26 June 1800). This time, people asked for a reduction in the quantities of wheat, sheep, and flour their town was required to provide the capital annually.

116 Rossitsa Gradeva, “Ottoman and Bulgarian sources on earthquakes in central Balkan lands (17th–18th centuries),” in Elizabeth Zachariadou, ed., *Natural Disasters in the Ottoman Empire* (Rethymnon, Crete: Crete University Press, 1999), 63–4.

117 Baer, “Great Fire,” 159–64, quotation from 163.

118 Marc Baer discusses religious developments that took place during the reign of Mehmet IV, and especially since the 1660s, throughout his book *Honored by the Glory of Islam: Conversion and Conquest in Ottoman Europe* (Oxford: Oxford University Press, 2008). See especially 105–20, 163–78.

119 BOA, MMD, 3160 (The original file is no longer accessible. At the time I was conducting this research, only a poor-quality scan was available. I used Adobe Photoshop to make parts of it legible. Since then, the archives have rescanned this file with improved clarity and resolution. Since in the original scan page numbers were nearly impossible to read, I refer to image numbers as they appear on the archives’ computer system. Each image represents two actual pages).

120 For example: BOA, MMD, 4355:318–21, 325–31 (Eğriboz, 1705);

MMD, 3897:362–7 (Rhodes, 1714); and MMD, 3160:247–9 (İnebahtı (Nafpaktos), 1756).

121 For entries that mention the three mosques, see BOA, MMD, 3160: 1, 5, 6, 8, 9, 10, 14. For the Umayyad Mosque only, see 10, 13. For the Süleymaniye Mosque, see 13. For the Selimiye Mosque, see 7.

122 For religious schools, see ibid., 5, 8.

123 Deniz Mazlum, *1766 İstanbul depremi: Belgeler ışığında yapı onarımları* (Istanbul: İstanbul Araştırmaları Enstitüsü, 2011), 48–50.

124 The list appears in BOA, MMD, 3160: 2–4, 6–7, 9–12. It contains 487 entries, but 57 of them are duplicates.

125 Ibid., 2–3.

126 Ibid., 3–4.

127 Ibid., 10–13.

128 BOA, C. EV., 2190 and 2219.

129 *Sudur eden firman-i ʻaliyeleri mücibince kırk camiʻ-i şerif ve kırk hamamın taʻmiri mukteza olan mahalleri* (BOA, C. EV., 1823/2).

130 Al-Ghazzi, *Nahr*, 3: 235–6; Burayk, *Taʾrikh*, 81–4; al-Budayri, *Ḥawadith*, 227–8.

131 *Masarif-i bina' ve ta'mir ez kal'e-i Şam ve cami'-i şerif-i Emevi ve minare-i ebyaz ve cami'-i şerif -i merhum Sultan Süleyman Han ve ba'zı medaris ve 'imaret ve emakin-i saire der belde-i mezbure*. BOA, MMD, 3160:8.

132 In two instances, the text reads "many other places that have been destroyed" (*sair emakin-i kesire münhedim*; ibid., 5, 8). In another: "some of the places and sites that need building and repairing" (*muhtac-i binaʾ ve taʿmir olan baʿzı mahall ve mevakiʿ*; ibid., 20).

133 The citadel appears in work orders, ibid., 1, 8, 9, 10, 13.

134 Ibid., 14–5, 17.

135 Ibid., 2–4, 6–7, 9–10.

136 BOA, C. EV., 1823/2; C. DH., 1181.

137 *Evvela kal'eyi ve ba'd* [sic] *cami'-i Emevi ber mucib-i keşf-i cedid bina' ve ta'mire müsara'at ve Selimiye ve Süleymaniye cami'leri ta'miratını dahi irade buyurulduğu üzre* etc.; BOA, C. EV., 2070/1.

138 BOA, C. DH., 1108.

139 Rhodes Murphey, "Disaster relief practices in seventeenth-century Istanbul: a brief overview of organizational aspects of urban renewal projects undertaken in the aftermath of catastrophic fires," in Ali Çaksu, ed., *International Congress on Learning and Education in the Ottoman World, Istanbul, 12–15 April 1999* (Istanbul: IRCICA, 2001), 45–8; Murphey, "Provisioning Istanbul," 219.

140 I discussed this issue at length in “Ottoman urban privacy,” 514–18.

141 BOA, C. EV., 2070/1.

142 BOA, C. EV., 2070/2.

143 The number of *hane* of *jizya* payers in Aleppo was reduced from 14,960 to 3,105, corresponding to a reduction of taxes collected from 80,159 to 19,775 *guruş*; BOA, C. ML., 11408/1 and 2.

144 See, for example, Sabra, *Poverty and Charity*, 50–68; S. D. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza* (Berkeley: University of California Press, 1967–88), 2:126–38; Cohen, *Poverty and Charity*, 174–88; Marcus, *Eve of Modernity*, 212–8; Miriam Hoexter, “Charity, the poor, and distribution of alms in Ottoman Algiers,” in Michael Bonner et al., eds., *Poverty and Charity in Middle Eastern Contexts* (Albany, NY: SUNY Press, 2003), 145–62; and Singer, *Charity*, 67–81.

145 ‘Abdürrahim Menteşizade, *Fetava-i ‘Abdürrahim* (Istanbul: Darüttıba‘at ül-Ma’muret üs-Sultaniye, 1827), 2:562; Seyid Feyzullah, *Fetava-i Feyziye ma‘a nukul* ([Istanbul]: Dar ü-Tıba‘at ül-Amire, 1850), 504, 506; ‘Ali Efendi Çatalcalı, *Fetava-i ‘Ali Efendi ma‘a nukul* ([Istanbul]: Tab‘hane-i Amire, 1856), 628, 630.

146 Marcus, *Eve of Modernity*, 77, 111–2, 172, 213–5.

147 Laporte, *History of Shit*, 3–7.

148 Hösel, *Unser Abfall*, 71–110.

149 Roger Chartier et al., *A History of Private Life* (Cambridge, MA: Harvard University Press, 1987), 3:418–19.

150 Hollis, *The Phoenix*, 135–56; Heyl, *Passion for privacy*, 213–304 (considering the Great Fire to be a watershed for privacy). See also Chartier et al., *Private Life*, 3:399–435.

151 Dynes, "Lisbon earthquake," 34–49; Poirier, *Tremblement*, 93–112.

152 For more on this, see Shirine Hamadeh, "Public spaces and the garden culture of Istanbul in the eighteenth century," in Virginia Aksan and Daniel Goffman, eds., *The Early Modern Ottomans: Remapping the Empire* (New York: Cambridge University Press, 2007), 277–312. Hamadeh shows how the understanding of public spaces developed in the capital; yet, the boundaries between public and private saw few changes.

153 When fire destroyed a market in Aleppo in 1544, the pasha ordered that roofs no longer be constructed of hay (al-Ghazzi, *Nahr*, 3:204). Similar decrees were issued in Istanbul after fires, at times causing population movements (Rozen and Arbel, "Great fire," 148; Kemalettin Kuzucu, "Osmanlı döneminde İstanbul depremleri" and "Osmanlı başkentinde büyük yangınlar ve toplumsal etkileri," in Eren, ed., *Osmanlı*, 5:678–97).

154 As discussed previously, Marc Baer has provided an example of postdisaster works that did aim to redefine that relationship and the boundaries between Muslim and non-Muslim communities; Baer, "Great fire."

3 Natural Disasters and Ottoman Communities

Human knowledge and the centuries-old experience with natural disasters could do little to prevent the wrath of nature even in the twenty-first century. At most it could help in better addressing the devastating results. The mighty earthquake that shattered the Haitian capital, Port-au-Prince, on 12 January 2010 killed more than 230,000 people, injured thousands, and caused damage in billions of dollars. As soon as the quake abated, foreign governments and international organizations rushed to offer help in cash, kind, and rescue personnel. Much support had reached Haiti after the catastrophe, but it could only partly mitigate miseries, material and especially mental, on such a wide scale. Where government aid and external help fell short of providing solutions, local communities and associations stepped in. In a Port-au-Prince slum, one priest hurried to rebuild his church, reassemble his congregation, and provide food, shelter, schooling, and security to thousands of victims. A reporter who interviewed some of his followers heard the same explanation repeatedly: The government was not doing anything, but at least he was.[1]

In Haiti, as in other places struck by disasters, communities played an essential role in the recovery process, one often more significant than that of the government. "Community" is used here to denote an association of people sharing a locale, collective operational norms, some form of governance, religious and/or cultural codes, or occupational features, as well as a sense of distinctiveness from the larger society surrounding it. Social scientists and historians agree that such units greatly affect their members' conduct in normal times and still more under exceptional circumstances, such as disasters. Social and technological developments in the twentieth and twenty-first centuries have reduced the cohesiveness of communities and their ability to impose normative behavior on their members. So nowadays the community is not the only place – perhaps not even the main place – to turn for understanding individual and group disaster-related behavior, as other factors such as mass media and the Internet also affect human reaction to hardship.[2] We can assume, however, that in earlier times communities were more involved in the lives of their

members than today, the more so when catastrophes occurred. This is also applicable to the pre-Tanzimat era in the Ottoman Empire, during which, as we have seen in Chapter 2, the state could not address all the needs of its people. The community, whether it was one's religious group, one's neighbors, the guild, or the business circle, was a prime locus people turned to for help in difficult times. Sometimes the community could be one's only resort.

In this chapter, I consider the urban religious community in the Ottoman Empire as a disaster relief agency. I first question the common assumption regarding the centrality of belonging to a religious community in people's social life and their socioeconomic status. I show that one's commitment to a community did not necessarily supersede all other interpersonal bonds and that a formally inferior religious status, in the case of Christians and Jews, did not always dominate their daily life routine, nor did it necessarily encourage the creation of a segregated organization around a church or a synagogue. On the whole, interconfessional boundaries in Ottoman urban society were looser and more porous than we tend to think. Nonetheless, I will argue that in times of acute crisis the religious community did serve as primary venue for seeking and providing aid, relying on customary practices of charity. During and after natural disasters, when demand for charity soared, communal affiliation mattered more. For Jews and Christians, the community fulfilled some of the needs the state did for Muslims. To understand the role of such religious frameworks in times of adversities better, I focus in this chapter on non-Muslim communities, mostly in Ottoman Syria.

Exploring this facet of the scene has entailed special methodological problems. Unlike the wealth of extant evidence on the performance of the state during crises, I have found little of it regarding responses on the communal level, and considerably less for Christians than for Jews. In part this might be a result of certain difficulties I have confronted in accessing sources. But my firm impression is that community records for times of crisis were themselves rather meager, and often nonexistent. The horrific afflictions hit the communities in more ways than one, among others in hindering their ability to keep records. As against this, there is ample evidence for the structure and administering of community charity in normal times. This, if cautiously scrutinized, may allow us to obtain a relatively accurate notion regarding its functioning under extraordinary conditions as well. My findings in this search leave no doubt that the communities were heavily relied upon by their members and served as a source of aid for them in such times of crisis. A large part of the discussion that

follows, therefore, examines the role of the community as a relief agency in normal times and then infers from it – and from some direct disaster-time testimonies – its possible functioning in times of famine, earthquake, or plague.

The Religious Community: The Quintessence of Social Life?

How central was the religious community to the daily experiences of Ottoman urbanites? The answer is related to the nature of confessional boundaries in Ottoman society. In Chapter 2 I explained that the division between Muslims and non-Muslims was apparent in some ways (distinct judiciary and military systems, social services) and less so in others (allocation of state resources during crises). I also argued that the way historians have understood the empire as being typified by religious divisions has failed to show the pluralistic character of the Ottoman state. It was not only scholarship on the Ottoman Empire that espoused the premise of stringent religious divisions: Scholarship on Jews and Christians under Islam, in both the pre-Ottoman and Ottoman periods, has often done the same. It has been commonly assumed that interreligious divisions actually molded people's life realities: their social status, residential locales, occupations, even how they behaved and reacted to changes around them. Many historians have subscribed to the flat postulation that communities were formed primarily along religious lines and that other social and economic divisions were secondary to them. These communities were autonomous in the sense that they served as a separate and sometimes even the sole source of authority for their members. The latter, by and large, kept apart from members of the other communities. For *dhimmis*, according to this notion, the religious community formed the framework within which most social interactions occurred and disputes were settled. The state, for its part, did not interfere with the internal affairs of Christian and Jewish communities.[3]

A recent study by Uriel Simonsohn on Jews and Christians under Islamic rule from the seventh to the eleventh century has questioned this reading of *dhimmi* autonomy. According to Simonsohn, a measure of autonomy did characterize the working of a community within its own jurisdiction, an arrangement most Muslim jurists conveniently accepted. Yet neither Muslim jurists nor the state wished to force non-Muslims to settle their legal matters only within the boundaries of their own communities, or to prevent them from initiating litigation in a Muslim court. Rather, it was communal leaders who promoted the idea of communal judicial autonomy, seeking exclusive sway over the

affairs of their followers by limiting alternative options. These leaders coached their disciples in using a "discourse of resistance," largely based on fear of and rage toward "the other." In their writings they preached against interconfessional contacts and bred separatist aspirations. Their efforts, however, were successful only up to a point, and the rigid religious divisions did not hold. Instead, in Middle Eastern cities one can talk about a "murkiness of confessional boundaries," and a "plurality of authorities" in the life of the individual, which included a rainbow of social bonds, business partnerships, and friendships among members of different faiths. There were common features in the Middle Eastern urban culture that pulled Muslims, Christians, and Jews closer together more often than they pushed them apart.[4]

This critical outlook is surely applicable to non-Muslim communities in the Ottoman Empire. Even more than in earlier periods, Jewish and Christian communities in Ottoman cities seem to have represented loose social units, whose authority over their members had weakened over time as a result of ethnic disputes and widening socioeconomic gaps.[5] This was reflected, first and foremost, in the issue of judicial autonomy. Despite having the ability to resort to communal adjudication when all the parties involved were of the same faith, turning to state (Muslim) courts was very common for *dhimmi*s from the time of the Muslim conquests; the practice continued in the Ottoman period.[6] It was an indication that non-Muslims did not depend solely on their communities for achieving justice and had no hesitation about – sometimes even a preference for – settling their disagreements in the Muslim court.

Ottoman rule over non-Muslims was rather flexible and was fine-tuned periodically by officials from sultans to local qadis. Historians generally agree that, while *dhimmi*s were surely discriminated against, the Ottomans were more lenient toward them than most Islamic states in history.[7] This was seen in fatwas of *şeyhülislam*s on matters regarding Jewish and Christian life. Muslim jurists proscribed non-Muslim religious ceremonies and wine drinking in public, as well as the construction or renovation of places of worship, and they refused to accept a *dhimmi*'s testimony against a Muslim in court, emulating practices by earlier Muslim states based loosely on the Pact of 'Umar.[8] But often they also adopted a considerate approach in deviation from *dhimmi* law. Such, for example, was a fatwa stating that a Jew could hide his religion by wearing a white turban, typically reserved for Muslims, if he felt he was in a life-threatening situation; a ruling that Jews praying at a synagogue in the Jewish quarter were allowed to raise their voices if this happened during a fund-raising event

designed to ransom a captive; and a permission given to Christians to read sections of the New Testament in public so long as the passages were not idolatrous in nature.[9] Sometimes such a tendency toward lenience resulted in contradictory rulings by the very same scholar.[10] The relatively lax approach to governing non-Muslims was in line with earlier Ottoman tradition (fourteenth and fifteenth centuries) of acceptance and diversity. Pursuing the footsteps of the early Ottomans in Thrace and Greece, Heath Lowry has found evidence for a mixture of Greek and Turkish cultures that crossed religious boundaries in language, style, and forms of prayer.[11]

On the local level, reality was a bit more complex, and one sometimes had an impression of widespread discrimination against non-Muslims. Jews and Christians were often required to dress distinctly from Muslims; even when entering a public bath, they had to be identified by girding themselves with a rope or wearing a bell.[12] Here and there, local authorities imposed excessive taxation on non-Muslims.[13] At the same time, however, one finds indications for kinder local attitudes toward non-Muslims. One such sign was the ongoing reconstruction and renovation of churches and synagogues throughout the seventeenth and eighteenth centuries and beyond, despite jurists' aversion to the practice.[14] Reports from the eighteenth century suggest that the ban on loud prayer may not have been tightly enforced,[15] that non-Muslims could congregate freely, and even that wine was drunk publicly.[16] Wealthy Christians were seen riding horses, a rare sight prior to that century.[17] Jews and Christians were inferior to Muslims in principle; in reality – surely in the urban reality of the eighteenth century –they enjoyed tolerance and their lower status scarcely mattered. In Halil İnalcık's summary:

> The urban population of the empire ... was divided into the two categories of Muslim and non-Muslim, but this was a classification which the şerîat [Islamic law] imposed, and did not correspond to the real social and economic divisions in society. Muslim and non-Muslim merchants and craftsmen, in fact, belonged to the same class and enjoyed the same rights.... From time to time the sultans sought to fulfill the provisions of the şerîat by issuing laws forbidding non-Muslims to wear the same clothes as Muslims, to own slaves or to ride horses, but these decrees were ineffective.[18]

The spatial distribution of Christians and Jews in Ottoman cities and the occupational pursuits of *dhimmis* were yet another reflection of their integration in the Ottoman economy and society. Special residential quarters were designated for Christians and Jews in many

cities (see Figure 3.1), an arrangement the Ottomans inherited from previous Islamic states,[19] but such neighborhoods were never quite homogeneous even before Ottoman times. Muslims and non-Muslims often cohabited in the same quarters and streets, sometimes sharing a common yard or a private house.[20] Similarly, with the exception of high-ranking government positions (from which most Muslims as well as *dhimmis* were excluded) and religion-oriented ones (such as clergy and kosher-meat supervisors), all occupations were open to anyone.[21] The wide range of callings everybody could practice, and the membership of Muslims and *dhimmis* in the same guilds, facilitated daily interactions between affiliates of different faiths on a large scale.

Figure 3.1. A street in the Jewish quarter of Ottoman Aleppo. Photo by Lev Weitz, 2008. Reprinted with permission.

The limits of judicial autonomy, and the mingling of Muslims and *dhimmis* in residential areas and workplaces, tell the story of the multiple identities in Ottoman urban society. Documents in the Ottoman archives often mirror this colorful rainbow of identities. A registry of *jizya* payers from Tripoli, drafted in 1691, identified heads

of households by several attributes – their name, religious community affiliation, town of origin, neighborhood of residence, occupation, and tax bracket (high, middle, or low) – to indicate economic status.[22] Reports with long lists of *jizya* payers for other towns featured similar details.[23] Obviously molded to respond to administrative needs, such categorization epitomized the different circles to which Ottoman urbanites (and most likely villagers, too) belonged. Each rubric represented a circle with fairly clear boundaries; belonging to any of these implied sharing a particular attribute, such as practicing the same profession or living in the same neighborhood. A person's social life always included several networks, among them the religious community, defined as it was by its members' faith (regardless of the degree of their devoutness or active participation in community affairs). There was nothing particularly Ottoman or Middle Eastern about this social routine, of course; but it is worth bearing in mind the other circles that represented alternative venues and competed with the faith-based community for people's identification. Under such circumstances, the control religious leaders had over the affairs of their community's members was perhaps less firm than they would have wished – or described in their writings.[24]

Notwithstanding challenges to the religious community by competing social bodies, the community still fulfilled functions and offered services no other unit could provide. People therefore continued to support it even when seeking judicial arbitration in the *maḥkama*. Prayer and other religious services naturally took place only within one's church or synagogue; I have found no evidence of Christians or Jews attending prayers either at the other group's house of worship or at a mosque.[25] Christians of one sect did at times attend services in the church of another, and in cities with many congregations Jews would show up at a synagogue other than their own.[26] But such instances of inter communal connections in religious rituals were rare. The same can be said about education: a church or a synagogue was the place most people sent their children to be schooled. Before the nineteenth century, there were virtually no educational options besides the community. While missionaries were active in the empire from the sixteenth century, missionary schools that attracted members of other groups, including Muslims and Jews, had not been founded before the arrival of American Protestants in the mid-nineteenth century.[27] Because religious rituals and education were products almost everyone consumed (albeit in different degrees), membership in a community cannot be said to have been voluntary. Although in large cities with multiple congregations one could leave one and join another,[28] the very fact that a person living in a city was

Christian or Jewish made him or her a member of the community: One paid taxes through the community; had rites and ceremonies conducted in the church, synagogue, or communal graveyard; and was always recognized by religious affiliation when approaching the authorities. The overlapping social circles allowed people to downplay the importance of the community in their lives, but not to avoid it altogether.

One field in which Christian and Jewish community leaders strove to achieve absolute dependency of the members on community institutions was the collection and dispensation of charity. It would be worth our while to examine this aspect in some detail. Charity was tied to religious rituals, and practicing it outside that context was inconceivable. In all three religions, charity was a central tenet of the faith, something believers were duty-bound to practice, to please God and do good. Everyone was expected to give to charity, even those who relied on charity themselves. Islam, Christianity, and Judaism had similar notions on how much one ought to give and who the recipients should be.[29] The calendars of all traditions were filled with opportunities to be charitable: Weekly prayers, fasts, holidays, weddings, circumcision ceremonies, saint days, holy months in the Muslim calendar, deaths and funerals, all were occasions for giving.[30] Charity was thus ubiquitous in Ottoman society and its values were shared across denominations. Because charity was an expression of devoutness, most acts of giving were conducted within the framework of the faith, and thus of the community. It was the religious community that prescribed practices of charity, either by regulating the collection and distribution of funds, food, and other needed help, or by running an extensive network of connections between givers and receivers. It is plausible that there were acts of giving between members of different communities. There is evidence that Christians were involved in charitable endeavors of a denomination other than their own.[31] But the larger share of charitable acts took place within the community and in a faith-specific context, even when the people involved were only loosely connected to their religious group otherwise.

In a sense, administering charity as a community matter was contrary to the state's effort to integrate its subjects under one Ottoman-Islamic culture. We have already encountered one instrument for achieving such integration: the *'imaret*. Originally intended as means for spreading Ottoman culture in newly conquered areas, *'imaret*s served people of all faiths and as such were a major vehicle for distributing charity in the empire in later periods. That

*'imaret*s served people of all walks of life is attested in the words of Laurent d'Arvieux (1635–1702), a French consul in Aleppo in the late 1600s, who had traveled in the Levant and North Africa extensively and spoke Arabic fluently. Describing grand mosques with hospitals, schools, and *'imaret*s attached to them that distribute food to the poor daily, he noted that "Turkish charity is offered to all without distinction of religion, age, and sex. Anyone is welcomed and provided with charity, and with equal courtesy."[32] The *'imaret*, however, could not replace communal charity for non-Muslims, because it was Christian and Jewish leaders who promoted a model of communal autonomy and segregation, not the Ottomans.

Communal charity had public and private aspects. The most seen and recorded were acts performed by community agencies, such as periodically collecting alms, food, and various handy items and distributing them to the needy; sustaining a church or a synagogue; and redeeming captives.[33] In Ottoman Christian and Jewish communities, these were handled by funds that appointed officials or the clergy ran and maintained through the generosity of wealthy congregation members. For example, the Jewish community in eighteenth-century Aleppo had an elaborate system of purpose-specific funds designed to address various charitable needs, such as visiting the sick, burying the poor, sustaining full-time students, or providing upkeep of the synagogue.[34] Similarly, the Catholic community in seventeenth-century Jerusalem had a foundation for alms collection (*aumône*) that supported the poor, pilgrims to the city, the sick, and the redemption of captives and prisoners.[35] In Coptic churches in Egypt, the clergy likewise used money donated by the wealthy to support the poor.[36] Other forms of historically "visible" charity included the appointment of functionaries to care for orphans, widows, and other vulnerable persons,[37] and the formation of limited-membership affiliate societies or fraternities that provided burial and other services to the needy. Such associations originated in medieval European cities, where they proliferated during the fourteenth and fifteenth centuries. Christian communities in the empire later adopted the idea and set up similar forums, and Jewish exiles from Spain took with them a similar model of societies (*ḥevrah*, pl. *ḥavarot*).[38]

Many acts of charity, however, occurred in private between giver and receiver. Usually conducted without record, they left little trace in the annals.[39] They took place, for instance, by the gates of houses of worship, when people handed alms to the poor, who loitered there daily.[40] We know little about the identity, or even the numbers, of donors and recipients in any given community. Nor do we know much about the sums that passed from hand to hand, or the accepted

conventions regarding the amount to be privately donated. Usually we learn of such acts only indirectly and piecemeal. We hear, for instance, of a rabbi from Aleppo who complained that congregation members were late for the morning prayer (*shaḥarit*) or did not arrive at all so as to evade the poor who expected alms[41] – a typical piece of evidence that reveals little beyond the mere norm of private giving. With only a handful of similarly fractional references at hand, one may hardly do more than speculate on this scene. In general, we know from European artworks that beggars and poor people were a common sight on the streets of Ottoman cities, and that they were given alms regularly. Istanbul appears to have been the only city where begging was regulated to some degree before the nineteenth century, so little evidence remains as to giving and receiving practices in general.[42] There is no way of assessing the share of such informal beneficence as a proportion of general giving to charity in Ottoman society. It should not be ruled out that it made up the greater share of it, though the extant evidence is too scanty to substantiate the possibility.[43]

The one exception for private giving, which was well documented, was the dedication of or contributing to existing pious foundations, or *waqf*s, or their Jewish and Christian equivalents, the *hekdesh* and *piae causae*.[44] Jews and Christians often dedicated property through the *waqf* system. In theory, non-Muslims could dedicate property or funds as *waqf* to support any charitable goal, as long as that goal did not oppose Islamic law, as in giving to a church or synagogue. In practice, Christians and Jews did designate property as *waqf* earmarked to benefit a church, synagogue, or other individuals in their communities.[45] *Waqf*s were registered in the Muslim court and provided their founders a way to secure their assets against confiscation or creditors of all religions. Just as they turned to the *maḥkama* to seek justice outside the community, Christians and Jews founded *waqf*s to register property and assets because it was practical and beneficial.

Overall, with the evidence on communal and private giving as scanty as it is, the scene remains extremely murky and most of its segments tenuous. We cannot determine even roughly how much a community raised through organized public funds, and by what criteria charity was distributed among the needy. Nor do we know how many community members participated in giving, and what happened to those who did not show up at the church or synagogue when funds were collected, or those who otherwise failed to pay. Yet another question, rather essential for our purposes here, is whether giving to communal charity was a serious burden on the donors,

which they would try to shirk in times of hardship. In the next section I address the latter point, along with other related issues: Was giving to communal charity voluntary in any way? Alternatively, were there other motivations for people – even those not tightly associated with the community – to give regularly? Were there ways to enforce giving to communal funds? Exploring the considerations that led people to give is important if we are to understand what happened when, in times of hardship, it was difficult for people to contribute and what communities did in such dire circumstances to take care of their people.

Why Give?

Religion and charity were deeply rooted in Ottoman life routine. While communal boundaries may not have been as strict as we used to think, and while religious faith was not necessarily the main determinant in one's social status or lifestyle, it is still true that religious norms and practices characterized Ottoman urban life more than anything else. Its symbols were everywhere, from houses of worship to soup kitchens, from calls to prayer to the manner people dressed and talked. Just as religion was ubiquitous, so was charity, the ultimate incentive for which was the reward of pleasing God. Many believers gave to charity primarily to perform a religious duty, which, like all duties of the faith, entailed a reward for fulfilling and punishment for shunning it. Attributing such acts of benevolence primarily to religious sentiments makes sense, and many historians have indeed subscribed to this kind of reading, in Middle Eastern and other contexts alike.[46] It is worth noting, however, that associating charitable acts primarily with one's belief could also reflect the fact that much of our knowledge about charity is obtained through religious sources.

Central as religion was in Ottoman society's routine, it could not account for all charitable acts. Sometimes religion was only a means to articulate and implement altruistic intentions that otherwise would have found other channels. This was evident to religious scholars, too, who acknowledged that even though the wrong intent could invalidate the act of giving, it was difficult to ascertain one's true motivation for being charitable.[47] Other factors driving people to contribute might have included political considerations, since the very act of charity, as we have seen, served a political purpose for the Ottoman state itself; it was largely via channels of charity that the Ottomans first introduced their culture, language, and religion to the people they conquered. In later centuries, the Ottomans built monumental *waqf*s to assert presence and authority. As we have seen

in Chapter 2, many of these large state-sponsored institutions accumulated immense wealth and had access to resources ordinary people did not. As such, they offered rulers opportunities to promote certain interests in the name of Islam. Supporting people by providing them with a place to stay, food, work, and social status created dependency, loyalty, and patron-client relationships. A hierarchical network of such "political benefaction" existed, whereby loyal charity recipients served as patrons of lower-rank recipients whom they supported. The supreme patron was the sultan, who distributed alms, provided free meals daily to tens of thousands of his subjects all over the empire, and sponsored periodic public celebrations in the name of the Ottoman state. Sultans were also the founders of the greatest *waqf*s, many of which helped the poor through soup kitchens, education, and health care. Generosity was a vehicle for political influence and prestige that increased with the number of beneficiaries. In fact, charity was an essential trait of a ruler's policy or a wealthy person's social strategy. People were remembered for their beneficence, and the desire to leave behind such a reputation required giving substantial amounts to charity throughout one's lifetime.[48]

Waqf, again, was a channel that facilitated contribution of virtually any type of property to a wide range of recipients, enabling people to give for reasons other than reaching salvation and altruistically promoting the community's welfare. Thus "each individual *waqf* ... constitutes a discrete story of individual intentions and local circumstances."[49] Amy Singer has mentioned various possible motivations for establishing a *waqf* or contributing to an existing one: urban and rural development, imperial legitimation, a quest for personal prestige, circumventing legal restrictions on the division of inheritance, protecting wealth from imperial confiscation, promoting community or sectarian interests, and preserving social hierarchies and cultural norms.[50] Such incentives, with some variations, also existed among Jews when setting up a Jewish foundation (*hekdesh*) or a *waqf*.[51] They all had one characteristic in common: the quest for some form of personal or familial gain. From this perspective, no charity was entirely altruistic.

With so many possible considerations at play, it is hard to pinpoint the reason why Christians or Jews of any given community constantly contributed to communal charity. There were, no doubt, those who made daily or weekly donations out of sheer pious sentiment (although even that cannot be regarded as utterly selfless, for the giver usually expected a reward in heaven). For the rich who held leadership positions in their communities there were more incentives to sustain communal charity. In a *dhimmi* community, as within

Muslim society, giving charity was a prestige builder. Those who were generous in giving were held in high regard by the religious leadership, and that in turn enhanced the political stature of these lay leaders in their congregations. Those with more limited means who gave to public funds often did so to fulfill their part in the unspoken community contract, by which community leaders assumed responsibility for its administration and for defraying the greater share of public expenses. This tacit communal deal was probably a major reason why people chose to give to charity. Although making daily and weekly donations at the Church or Synagogue (see Figure 3.2) was required in theory, there was no mechanism that could enforce it effectively, and it was primarily these communal conventions that assured the ongoing flow of charitable donations. Those who declined to pay could be summoned to the halakhic or ecclesiastical court, which could, in theory, go as far as excommunicate them. But communal courts were reluctant to apply such extreme measures, because, as we have seen, people had judicial alternatives outside the community. We know of cases of Jews who refused to comply with communal norms and openly defied the authority of rabbis, yet managed to get away with it.[52]

Figure 3.2. The interior of the Franjiyya synagogue in Damascus. The synagogue was the main scene for the collection and distribution of communal charity. Photo by Joel Blecher, 2008. Reprinted with permission.

The division of roles between the wealthy and the rest of the community was of key import in the functioning of charity. As already noted, in return for their contribution to public funds the rich assumed leadership positions within the community. They were expected to address the wishes of their congregations, but even when they did not they had their way, because everyone knew how dependent communal organization was on their generosity. Why would the rich be interested in preserving such a social arrangement? The answer is simple: It enabled them to administer charity and other public funds

in a profitable way for themselves. For example, in some Jewish communities the *parnasim* (the community's aldermen) advocated a limited public welfare system, in which paupers relied on begging and private almsgiving rather than on communal charity. As the *parnasim* were the main funders of alms boxes, it is easy to see why they wished to privatize charity: It would allow them to give no more than anyone else. The middle class and the poor, by contrast, favored an all-embracing system that would minimize the need for private charity and take beggars off the streets.[53]

Such conflicting trends notwithstanding, the social coherence of communities persevered. Clearly, lay leaders enjoyed their positions, which enabled them to develop valuable ties with the Ottoman elite. But the other groups too had an interest in upholding the communal balance of power. People's economic fortune in the premodern era was marked by instability; a few months' illness or a sudden rise in staple prices could quickly demote one to indigence. Unless well-off, people knew with near-certainty that at some point in their lifetime they or someone in their family would need to depend on communal charity. One could, of course, also seek charitable support out of one's community in such dire circumstances, for example, in the local *'imaret* or hospital. While we do not know how frequently Christians and Jews took advantage of such opportunities, it would make sense to assume that *dhimmis* were not likely to attend weekly prayers at the neighborhood mosque, or linger at its doors where alms were distributed. More plausibly, Christians and Jews relied mostly on their community and coreligionists for aid when necessary. This dependency became more critical in times of hardship. Charity thus underscored segregation rather than pluralism in Ottoman urban society. With limited options to obtain charitable assistance outside the community, *dhimmis* must have regarded communal funds as crucial.

Communities Face Crisis

The scene laid out previously reveals that Ottoman minority communities were fairly well organized to assist their weaker segments in normal situations of hardship. But were they also prepared to meet such needs under the harshness of natural disasters? Did they continue to operate as an effective social organization once catastrophe struck?

Modern examples would seem to suggest that, once the state is no longer able to provide the required help, communities step in. For example, after a major earthquake in Egypt, in 1992, popular religious

organizations, among them the Muslim Brotherhood, moved in to give food, clothing, and shelter to the many victims whom the government proved incapable of helping.[54] Likewise, when a flood hit Pakistan in 2010, religious leaders and Islamic charity groups were instrumental in organizing relief for those who received no help from the state.[55] Similar developments took place during the Ottoman period. As I showed in the previous chapter, imperial response to epidemics, famines, and earthquakes was limited to grain shipment, tax remissions, and postdisaster reconstruction. This left many other needs unheeded, and they were addressed locally by provincial governors and other officials, as well as by community institutions. In small-scale events, when an affliction was short-lived and its financial repercussions manageable, the community could handle the demand. When a severe disaster occurred or persisted, however, the community could face a serious problem of depleting resources. The result of such acute crises was that communities nearly or completely ceased to exist as relief agencies. Disasters thus posed a grave challenge to the cohesion of communities.

An immediate response to a financial crisis triggered by natural disaster – or, for that matter, by a sudden excessive demand prompted otherwise – was diversion of resources from one designated purpose to another. We have more evidence for such reappropriation of funds in Jewish communities, but Christians applied the practice as well. Community leaders would divert resources from objectives such as supporting instruction of children to aiding the poor during a famine, when bread prices soared.[56] To sustain their charity box they would also try to increase revenues by selling community property, often at unfavorable prices, including sacred silver or gold artifacts from the synagogue, to rich Jews or even to gentiles – a practice rabbis sanctioned reluctantly.[57] Christians could also fall back on missionary support or on the extensive network of monasteries in the countryside, which would open their gates to the poor and those escaping from the affected areas.[58]

If such measures turned out to be inadequate, community heads could try to alleviate hardships by announcing the suspension of communal ordinances to allow people the freedom to act without the risk of violating the rulings of the court.[59] Moreover, communal leaders would attempt to extract additional funds from the community's depleted resources by approaching members who had already donated to charity and asking them for yet another contribution. Such, for example, was the case in the Jewish community of Aleppo during the plague epidemic that swept greater

Syria in 1787. We have a rare testimony of that episode, by a local rabbi. The community, he related, fell into great difficulties striving to support its poor, whose number was rising unremittingly. Burial expenses became an especially heavy burden, as most victims were poor and their families could not afford proper funerals. Community leaders first borrowed money from non-Jews, which they were unable to repay. The public alms boxes were also exhausted. Seeking to raise more money that would allow them to keep helping the needy, synagogue officials sent out people to knock on doors and ask for further contributions. Most members declined, claiming that they had already given their share for that purpose. Only when the collectors reassured them that the money would be employed for other purposes this time did some of them respond to the request.[60] The rabbi's account does not reveal what purposes the collected funds eventually served. But his description makes it clear that the community's leaders were willing to go to great lengths in supporting those in need. The preceding portrayal seems to have been typical of the way communities reacted to hardship. Obviously, the adequacy of such measures depended on the length and severity of the crisis. When it was short-term and relatively mild, the available reserves along with ad hoc collected resources would suffice to sustain the destitute through the end of the predicament. But what could community leaders do when the disaster was prolonged and its impact harsh?

It seems that where the Aleppo rabbi's story ends, mystery begins. The organizational disarray that must have ensued left few traces in the historical records, and one thus has the strong impression that it was not just the records but also the community itself that dematerialized. French missionaries in Damascus reported that during a plague epidemic in 1653 there were no local priests to be found for either spiritual or material support. The missionaries did their best to visit as many Christian homes as possible and attend funerals, but given the high mortality rates, which on some days reached several hundred individuals, many were left with no support.[61] Missionaries provided similar descriptions for later epidemics.[62] The Italian traveler Giovanni Mariti reported that during the plague outbreak in Aleppo in 1760, Muslims went to the aid of abandoned Christians.[63] In the late eighteenth century, another severe plague epidemic supposedly interrupted the ordinary charitable practices of the various Christian communities in Aleppo. It was probably not by chance that rival congregations chose to cooperate in the wake of the plague and found a charitable society that would support Christians during difficult times. Apparently, the society was created to address needs the various communities could not meet in the recent crisis.[64]

Christians apparently had a slight advantage over Jews when their collective institutions could no longer support them: the presence of European merchants, diplomats, and Catholic missionaries in many Ottoman cities, which was an additional potential source of help in ordinary and, more so, dire times. Changes in European attitudes to Jews in the seventeenth century[65] and the ban on missionary work among Muslims led Europeans in the empire to employ, sponsor, and assist mostly local Christians. During the long plagues and famines of the early 1760s in Syria, Thomas Dawes, the almoner of the British Levant Company, kept a journal of the alms he distributed with information about the recipients; they were all registered as either Christian (Greeks, Maronites, Syrians) or "unspecified," save for one Jew. Most alms applicants were referred to Dawes by their priests, apparently indicating that, when unable to support the needy, communities could also seek foreign succor. The British, for their part, dispensed alms on an individual basis. They distributed money at their consulate gates every few weeks, allocating a fixed sum to that end irrespective of the applicants' number.[66] French Jesuit missionaries were likewise approached for charity in times of plague epidemics, such as that of 1719 in Aleppo, where "day and night they were at our gates asking for our assistance. Catholics, heretics, Francs, rich and poor equally turned to us."[67]

We know less about the Jews. As a social unit, the Jewish community almost completely disappears from Jewish sources during long epidemics or famines. It resurfaces only in their aftermath. To be sure, this does not necessarily mean that all community functions ceased or that its social structure entirely collapsed. Some basic functions of communal life persisted even in the bleakest of times. Those who remained able-bodied continued to attend the synagogue, which usually stayed open, so long as they could. In Aleppo, in the midst of a plague epidemic, Patrick Russell reported on Jewish gravediggers who were still doing their job[68] – typically a communal duty – while more than once noting a near-deserted synagogue with Jews praying there on their own.[69] A collective coping with disaster was probably easier in larger communities. Thus in Istanbul, the *bikkur ḥolim* (a society for caring for the sick) continued to operate during a severe epidemic: It relied on still-healthy volunteers, who carried the sick from their homes to an infirmary, treated them, and buried them once they died.[70]

Yet, it seems that harsh and prolonged calamities spurred a temporary collapse of rabbinical authority in many congregations – a conclusion one reaches from the silence of the sources rather than from direct evidence. In Jewish responsa collections from the Ottoman

period I found no story akin to Russell's account of the Jewish gravediggers. Nor did I come across a single rabbinic ruling regarding what ought to be done during a disaster or how one should behave. True, an issue would be discussed in the responsa only if rabbis were asked about it, and it is theoretically possible that at such times people did not address queries to their rabbis; possible, but not likely. Catastrophes have always been a source of public tumult and confusion that generated a strong need for reliable guidance. Disaster studies for the twentieth century show that, under such circumstances, people tended to look for authoritative advice, official or ad hoc.[71] There is no reason to assume that Ottoman cities were an exception. However, such a quest for authoritative counsel seems to be entirely absent from Ottoman rabbinical sources. This would suggest one of two things: that natural disasters disrupted only the process of keeping records, without necessarily destabilizing the community itself. As I have shown in the previous chapter and will discuss in the next, the effect of some disasters was simply too formidable to cause merely a cessation of scholarly activities. More likely, severe catastrophe undermined the authority of community leadership to such an extent that members saw no point in seeking their counsel. This last possibility would amount in practice to a temporary disintegration of communal life. Such was the case in Baghdad in 1743, when the entire rabbinical leadership was wiped out in a plague epidemic and many members of the Jewish community left. Communal life resumed only after the arrival of a rabbi from Aleppo, who was sent there as a response to a plea surviving Baghdadi Jews submitted to the president of the Aleppo rabbinical court.[72]

The example from Baghdad notwithstanding, the main factor behind the apparent collapse of communal services was probably money, or rather its absence. In times of hardship, people were generally reluctant to donate to charitable purposes, apparently concerned that they might not have enough left for themselves. Studying *waqf* making in eighteenth-century Jerusalem, Oded Peri pointed to a significant decrease in the number of registered *waqf*s in times of economic crisis or famine. He explained that when people experienced financial difficulties, they instinctively preferred to keep their money or assets to themselves, even though *waqf*s were considered a good way to safeguard one's assets from deterioration or confiscation.[73] Studies conducted by psychologists on famine in the nineteenth and twentieth centuries reveal a similar pattern: While during the first stages of famine people are willing to share the little food they have with relatives and friends, the circle of beneficiaries of one's lot of food narrows as the crisis continues. Eventually, in long-lasting famines, starvation would cause people to refuse to give food, even to their

own kin.[74] Applying this insight to the earlier scene of the 1787 plague, in which the collected funds ran out, one can readily appreciate why it was impossible to extract further donations from congregation members, regardless of whether or not they had contributed earlier on. Eventually, as the severe situation persisted, no money was left in communal alms boxes; no one was willing or able to give any more; and the community's ability to support its members died out.

What did people do in the practical absence of the community? Presumably, they were on their own, relying on such personal resources as they could muster and on others who were willing to help, such as family and friends. Sketching urban realities in times of disasters and in the absence of the community is particularly difficult, because most of the evidence about the daily lives of Ottoman urbanites was provided by religious leaders, who were conspicuously silent during such times. Nonetheless, in the next chapter I will suggest some possible explanations for people's responses to natural disasters beyond relying on the community, by combining extant fragmentary historical evidence with twentieth-century studies on human behavior under life-threatening conditions.

1 Tom Phillips, "Haiti earthquake: Religion fills the void left by aid agencies," *The Guardian* online edition, 24 January 2010, http://www.guardian.co.uk/world/2010/jan/24/haiti-religion-aid-shortfall, accessed 3 August 2014.

2 Dennis Wenger, "Community response to disaster: Functional and structural alterations," in Quarantelli, ed., *Disasters*, 17–47; Claire Rubin et al., *Community Recovery from a Major Natural Disaster* (Boulder, CO: Institute of Behavioral Science, 1985), 22–57; Raphael, *When Disaster Strikes*, 291–308; Ritsuo Akimoto, "Disaster and urban community," in Russell Dynes et al., eds., *Sociology of Disasters: Contribution of Sociology to Disaster Research* (Milan: Franco Angeli, 1987), 153–78, and especially 158; Russell Dynes, "Coming to terms with community disaster," in Quarantelli, ed., *What Is a Disaster?* 109–26; Council, *Facing Hazards*, 95–103.

3 See, for example, Goitein, *Med. Soc.*, 2:1–170, 273–407; Rozen, *Jerusalem*, 64–92. For an extensive list of works representing this

approach, see Simonsohn, *Common Justice*, 4–5, n. 11–15.

4 Simonsohn, *Common Justice*, 5–10, quotes from 8; see also Abraham Udovitch, "The Jews and Islam in the High Middle Ages: A case of the Muslim view of differences," *Settimane di Studi del Centro Italiano di Studi sull'Alto Medioevo* 26 (1980), 655–84; Goitein, *Med. Soc.*, 1:70–4.

5 Yaron Ben Na'eh, *Yehudim be-mamlekhet ha-sulṭanim* (Jerusalem: Magnes, 2006), 316–7.

6 Simonsohn, *Common Justice*, 147–204. See the many cases of Jews turning to *shar'i* courts in Amnon Cohen, *Yehudim be-vet ha-mishpaṭ ha-muslemi: ḥevrah, kalkalah ve-irgun kehillati bi-yerushalayim ha-'othmanit, ha-me'ah ha-shesh 'esreh* (Jerusalem: Ben Zvi Institute, 1993) and its sequel for the eighteenth century: *Yehudim be-vet ha-mishpaṭ ha-muslemi: ḥevrah, kalkalah ve-irgun kehillati bi-yerushalayim ha-'othmanit, ha-me'ah ha-shmoneh 'esreh* (Jerusalem: Ben Zvi Institute, 1996); also see Fatma Müge Göçek, "The legal recourse of minorities in history: Eighteenth-century appeals to the Islamic court in Galata," in Molly Greene, ed., *Minorities in the Ottoman Empire* (Princeton, NJ: Markus Wiener, 2005), 47–70.

7 Mark Epstein, *The Ottoman Jewish Communities and Their Role in the Fifteenth and Sixteenth Centuries* (Freiburg: Klaus Schwarz, 1980), 19–47; Aryeh Shmuelevitz, *The Jews of the Ottoman Empire in the Late Fifteenth and the Sixteenth Centuries* (Leiden: Brill, 1984), 30–4; Marcus, *Eve of Modernity*, 39–48; Michael Winter, *Egyptian Society under Ottoman Rule, 1517–1798* (London: Routledge, 1992), 193–218; Masters, *Christians and Jews*, 16–40; Minna Rozen, *A History of the Jewish Community in Istanbul: The Formative Years, 1453–1566* (Leiden: Brill, 2002), 18–34; Ben Na'eh, *Yehudim*, 77–88. For a contrary opinion, see Bernard Lewis, *The Jews of Islam* (Princeton, NJ: Princeton University Press, 1984), 136–9.

8 For public demonstration of religion, see Düzdağ, *Ebussuud Efendi*, 96: *fetvas* 410–11; Menteşizade, *Fetava*, 1:78–80, where loud ringing

of church bells and raising pigs were banned. For wine drinking, and the justification of Muslims entering Christian drinking houses (*meyhane*) and shattering wine barrels, see Düzdağ, *Ebussuud Efendi*, 96:409, 412, 97:413; Menteşizade, *Fetava*, 1:80. For places of worship, see Düzdağ, *Ebussuud Efendi*, 105:460, 463, 106:466; Menteşizade, *Fetava*, 1:78, 80; Abdullah Yenişehirli, *Behcet ül-fetava maʿan nukul* ([Istanbul]: Matbaa-ı Amire, 1872), 165; for residential issues, see Düzdağ, *Ebussuud Efendi*, 94:401, 403, 404; Menteşizade, *Fetava*, 1:79. For evidence in the *sharʿi* court, see Düzdağ, *Ebussuud Efendi*, 98:419–24; Yenişehirli, *Behcet*, 168.

9 Düzdağ, *Ebussuud Efendi*, 89:358; Menteşizade, *Fetava*, 1:80; Yenişehirli, *Behcet*, 166.

10 Sultan Süleyman I's *şeyhülislâm* Ebussuud Efendi (d. 1574) ordered in one case that a church destroyed in a fire not be rebuilt, whereas in another he permitted reconstruction (Düzdağ, *Ebussuud Efendi*, compare 105:463 to 106:465).

11 Lowry, *Shaping*, 16–64.

12 Russell, *Aleppo, 1794*, 1:366; Jean de Thévenot, *L'empire du Grand Turc, vu par un sujet de Louis XIV* (Paris: Calmann-Lévy, 1965), 220–5; Cohen, *Jews, 16th century*, 147–8.

13 Burayk, *Ta'rikh*, 76; E. Denison Ross and Eileen Power, eds., *The Diary of Henry Teonge* (London: C. Knight, 1825), 147–8; Teixeira, *Travels*, 70; John Griffiths, *Travels in Europe, Asia Minor and Arabia* (London: T. Cadell and W. Davies, 1805), 338; Rapha'el Shlomoh Laniado, *Bet dino shel Shlomoh: She'elot u-teshuvot be-arbaʿah ḥelke shulḥan ʿarukh* (Jerusalem: Mekhon ha-Ktav, 1981), 61; Rapha'el Shlomoh Laniado, *She'elot u-teshuvot Maharash Laniado ha-ḥadashot* (Jerusalem: Mekhon Bet Aharon, 1997), 141; Yisrael Sasson, "She'elot," Ms. 7140 in the Jewish Theological Seminary Library, New York, 155.

14 Examples: (1) An Armenian church in Aleppo, 1616 (Hrand D. Andreasyan, *Polonyalı Simeon'un seyahatnamesi, 1608–1619* (Istanbul: İstanbul Üniversitesi Edebiyat Fakültesi, 1964), 153). (2) Maronite and Armenian churches in Aleppo, 1638 (Tawtal, *Watha'iq*, 1:15). The same Maronite church was expanded in 1670 (ibid., 1:35–6). (3) The Greek Orthodox Church in Damascus, 1739 (Burayk, *Ta'rikh*, 26). (4) Two churches in Damascus in 1758 and 1762 (ibid., 47, 83–4). (5) Renovation of the synagogue in Aleppo, before 1773 (Ṣadkah Ḥuṣin, *Sefer ṣedakah u-mishpaṭ: She'elot u-teshuvot le-ḥelek even ha-ʿezer* (Tel Aviv: [Lopez], 1974), 156). (6) In Baghdad around the same time (ibid., 256). (7) The synagogue in Aleppo, 1823 (Avraham ʻAntebi, *Sefer yoshev ohalim* (Jerusalem: Mekhon ha-Ktav, 1981), author's introduction).

15 At the Aleppo synagogue, lack of space caused some Jews to convene at an adjacent house from which they could hear the prayer leader. Undoubtedly, the voices were audible outside the synagogue as well (Laniado, *Maharash*, 76).

16 Burayk, *Ta'rikh*, 73–6.

17 Russell, *Aleppo, 1794*, 1:222–3; for previous centuries, see Charles Thompson, *Travels through Turkey in Asia, the Holy Land, Arabia, Egypt, and Other Parts of the World* (London: J. Newbery, 1754), 146.

18 Halil İnalcık, *The Ottoman Empire: The Classical Age, 1300–1600* (New Rochelle, NY: A. D. Caratzas, 1973), 150–1.

19 André Raymond, *Grandes villes arabes à l'époque Ottomane* (Paris: Sindbad, 1985), 296–7, 333–40; Goitein, *Med. Soc.*, 4:13.

20 Goitein, *Med. Soc.*, 4:13, 20–1; Raymond, *Grandes villes*, 168–72, 174–9, 296–7; Antoine Abdel Nour, *Introduction à l'histoire urbaine de la Syrie ottomane (XVIe-XVIIIe siècle)* (Beirut: Université Libanaise,

1982), 173–80.

21 A *jizya* register from 1695–6 detailed the occupations of Jews and Christians in Damascus. They included agents, moneychangers, creditors, clerks, transcribers, carriers and couriers, gatekeepers, physicians, jewelers; makers or processors of silk, various types of cloth, ropes, limestone, candles, sugar, and beads; millers, greengrocers, itinerant buyers and sellers of junk, peddlers, and day laborers (BOA, MMD, 1292:15–17). For a similar list, see Najwa al-Qattan, "The Damascene Jewish community in the later decades of the eighteenth century: Aspects of socio-economic life based on the registers of the *sharīʿa* courts," in Thomas Philipp, ed., *The Syrian Land in the 18th and 19th Century: The Common and the Specific in the Historical Experience* (Stuttgart: F. Steiner, 1992), 202. For *dhimmis* as members of guilds, see Marcus, *Eve of Modernity*, 157–62; Gabriel Baer, "The administrative, economic and social functions of Turkish guilds," *IJMES* 1 (1970), 1:28–50.

22 BOA, MMD, 3799.

23 BOA, MMD, 4439 (1693) and MMD, 1292 (1696).

24 Fariba Zarinebaf, "Intercommunal life in Istanbul during the eighteenth century," *Review of Middle East Studies* 46 (2012), 1:79–85. For a discussion of recent scholarship on the place of Islam in Ottoman society and confessional boundaries, see Karen Barkey, *Empire of Difference: The Ottomans in Comparative Perspective* (Cambridge: Cambridge University Press, 2008), 104–8.

25 According to some European visitors to the Ottoman Empire, entry of non-Muslims into mosques was prohibited. See, for example, Henry Maundrell, *A Journey from Aleppo to Jerusalem at Easter, A.D. 1697* (Boston: Samuel G. Simpkins, 1836), 69; Egmond, *Travels*, 2:259; Thompson, *Travels*, 140–1. As I show later, however, Christians were welcome in some mosque complexes and received charitable support there.

26 For Jews, see Ben Na'eh, *Yehudim*, 179–82; for Christians, Paul Lucas, *Voyage du Sieur Paul Lucas, fait par ordre du roi dans la Grece, l'Asie Mineure, la Macedoine et l'Afrique* (Amsterdam: Aux dépens de la Compagnie, 1714), 210–2.

27 Abdul Latif Tibawi, *American Interests in Syria 1800–1901: A Study of Educational, Literary and Religious Work* (Oxford: Clarendon Press, 1966), 1–30.

28 Ben Na'eh, *Yehudim*, 293–5.

29 Qur'an, 9:60; Abu Ḥamid al-Ghazali, *Iḥya' 'ulum al-din* (Cairo: Al-Babi al-Ḥalabi, 1957), 1:209–12; Maimonides, *MT*, Matnot 'Aniyyim, 7:5, 10:1; Avraham Mosheh, *Sefer ahavat ṣedakah: Hilkhot ṣedakah u-ma'aser kesafim* (Jerusalem: Yad Mikhal, 2008), 62–3, 79–83; Singer, *Charity*, 30–65.

30 Singer, *Charity*, 73–88; Mosheh, *Ahavat ṣedakah*, 489–509.

31 In 1787, Catholics in Aleppo founded the sacrificial fraternity (*aḥwiyat al-qurban*), which was responsible for coordinating the celebration of various holidays and rites. While it was made up mostly of Catholics, there were Maronite, Armenian, and Syrian members, too. Christians of all denominations continued to be involved in the fraternity in the nineteenth century as well (Tawtal, *Watha'iq*, 1:90–3, 2:53–67).

32 "La charité Turque s'étend à tout le monde sans distinction de religion, d'âge & de sexe. Tout le monde est bien venu & secouru avec charité, & même avec politesse"; Laurent d'Arvieux, *Mémoires du chevalier d'Arvieux* (Paris: C. J. B. Delespine, 1735), 4:464. See also Singer, *Constructing Ottoman Beneficence*, 75–6; Lowry, "Random musings" and Norman, "Imarets," in *Feeding People, Feeding Power*, 69–

79, 81–94.

33 Ottoman Jewish communal charity mirrored medieval practices (Cohen, *Poverty and Charity*, 204–11; Yosef Karo, *Bet Yosef*, Yoreh, 256:1–4; and my "Poor relief in Ottoman Jewish communities" in Arnold Franklin et al., eds., *Jews, Christians, and Muslims in Medieval and Early Modern Times* [Leiden: Brill, 2014], 67–82). For Christian communal charity, see Bernard Heyberger, *Les chrétiens du Proche-Orient au temps de la réforme catholique: Syrie, Liban, Palestine, XVIIe-XVIIIe siècles* (Rome: Ecole Française de Rome, 1994), 32–103; d'Arvieux, *Mémoires*, 2:483–93.

34 Laniado, *Bet dino*, 112–13. By that time, the old distinction between *kuppah* (alms box) and *tamḥui* (soup kitchen) outlined in the Talmud (BT, Bava batra, 8a-b) no longer existed.

35 d'Arvieux, *Mémoires*, 2:483–5, 491. The model for charity d'Arvieux described was similar in many ways to other *aumône*s that operated in France (Davis, "Poor relief, humanism, and heresy").

36 Febe Armanios, *Coptic Christianity in Ottoman Egypt* (New York: Oxford University Press, 2011), 25–40.

37 Leah Bornstein-Makovetzky, "Ha-kehilla u-mosdotehah," in Jacob Landau, ed., *Toldot yehude miṣrayim ba-tekufah ha-'othmanit (1517–1914)* (Jerusalem: Misgav, 1988), 161; Cohen, *Jews, 18th century*, 470–1; al-Budayri, *Ḥawadith*, 137–8.

38 Ben Na'eh, *Yehudim*, 211–3; Tawtal, *Watha'iq*, 1:90–3, 2:53–67; Yom Ṭov 'Asis, "'Ezrah hadadit ve-sa'ad bi-kehillot yisrael bi-sefarad," in Ḥayim Beinart, ed., *Moreshet Sefarad* (Jerusalem: Magnes, 1992), 263–79.

39 Cairo Geniza documents offer an exceptional insight into private giving in the Middle Ages. They contain numerous personal petitions of the poor who wrote to ask for assistance, through which one can construct a fair image of private charity for medieval Cairo (Mark Cohen, *The Voice of the Poor in the Middle Ages: An Anthology of Documents from the Cairo Geniza* [Princeton, NJ: Princeton University Press, 2005], 1–94). We have no parallel resource for the Ottoman period, for any religious group.

40 Ibn Kannan, *Yawmiyat*, 204; Abdul-Karim Rafeq, "The poor in Ottoman Damascus: A socioeconomic and political study," in Jean-Paul Pascual, ed., *Pauvreté et richesse dans le monde musulman méditerranéen* (Paris: Maisonneuve et Larose, 2003), 218.

41 Avraham 'Antebi, *Sefer ḥokhmah u-musar* (Jerusalem: Mekhon ha-Ktav, 2000), 104.

42 See, for example, the sketches of Ottoman urban and rural landscapes in the third volume of François Cassas Louis, *Voyage pittoresque de la Syrie, de la Phoenicie, de la Palestine et de la Basse Egypte* (Paris: [Imprimerie de la République], 1798). As romantic as his drawings are, the presence of poverty and beggars everywhere is unmistakable. For references to beggars in rabbinical sources, see Maimonides, *MT*, Matnot, 7:7; Yosef Karo, *Shulḥan 'Arukh*, Yoreh, 250:3. For Muslim beggars, see Sabra, *Poverty and Charity*, 41–68; Marcus, *Eve of Modernity*, 214–5. For regulating beggars in Istanbul, see Özbek, *Sosyal devlet*, 67–77.

43 Singer, *Charity*, 91–2.

44 For Ottoman *waqf*s and the motives to establish them, see Singer, *Constructing Ottoman Beneficence*, 17–22; Osman Ergin, *Türk şehirlerinde imaret sistemi* (Istanbul: Cumhuriyet Matbaası, 1939), 19–54; Annette Kaiser, *Islamische Stiftungen in Wirtschaft und Gesellschaft Syriens vom 16. bis 18. Jahrhundert* (Berlin: K. Schwarz, 1999), 20–1; Richard Van Leeuwen, *Waqfs and Urban Structures: The Case of*

Ottoman Damascus (Leiden: Brill, 1999), 97–101; John Barnes, *An Introduction to Religious Foundations in the Ottoman Empire* (Leiden: Brill, 1986), 12–17; Ron Shaham, "Christian and Jewish waqf in Palestine during the late Ottoman period," *Bulletin of SOAS* 54 (1991), 3:460–72, and especially 460–1.

45 Singer showed that one legitimate way for Christians to give to a church was to designate the beneficiaries of a *waqf* as the poor of the church (Singer, *Charity*, 99). In al-Ghazzi's list of *waqf*s in Aleppo one finds foundations Christians and Jews set up for the benefit of a church or synagogue (al-Ghazzi, *Nahr*, 2:430–56, 482–501).

46 Israel Abrahams, *Jewish Life in the Middle Ages* (Philadelphia: Jewish Publication Society of America, 1896), 35–61; Salo Baron, *The Jewish Community: Its History and Structure to the American Revolution* (Philadelphia: Jewish Publication Society of America, 1942), 290–350; Yaron Ben Na'eh, "'Oni ve hitmodedut 'imo ba-ḥevrah ha-yehudit ba-imperyah ha-'othmanit," *Sefunot* 23 (2003), 221–2; Susan Holman, ed., *Wealth and Poverty in Early Church and Society* (Grand Rapids, MI: Baker Academic, 2008); Pullan, *Rich and Poor*, 327–55 and elsewhere throughout the book; Michael Mullett, *The Catholic Reformation* (London: Routledge, 1999), 104; Euan Cameron, *The European Reformation* (New York: Oxford University Press, 1991), 258–60; Eamon Duffy, *The Stripping of the Altars: Traditional Religion in England, 1400–1580* (New Haven, CT: Yale University Press, 2005), 357–62; Joanna Smith, *The Art of Doing Good: Charity in Late Ming China* (Berkeley: University of California Press, 2009), 248–78.

47 For discussions on the issue of intent (*niyya*) among Muslim scholars, see Singer, *Charity*, 55–8. For similar deliberations in Judaism – albeit reaching different conclusions – see Mosheh, *Ahavat ṣedakah*, 52–3; BT, Pesaḥim, 8a-b.

48 Singer, *Charity*, 21–2, 81–7, 100–4, 121; Cohen, *Poverty and Charity*, 185–8.

49 Singer, *Charity*, 96.

50 Ibid., 104.

51 Mosheh Gil, *Documents of the Jewish Pious Foundations from the Cairo Geniza* (Leiden: Brill, 1976), 5–13.

52 See, for example, the story of Shmu'el Laniado, the chief judge (*av beit din*) in Aleppo in the early eighteenth century, who prohibited his community from eating vine leaves because of testimonies of the presence of tiny worms on them. Some people openly defied the rabbi and announced that eating vine leaves was permissible. The group was threatened by excommunication, but the measure was never imposed (Ḥayim Abulʿafyah, *Ḥanan elohim* (Jerusalem: Mekhon ha-Ma'or, 1993), 261–77.

53 'Asis, "'Ezrah hadadit," 268–9; Karo, *Bet Yosef*, Yoreh, 250:5.

54 Ami Ayalon, "Egypt," in Ami Ayalon, ed., *Middle East Contemporary Survey 16 (1992)* (Boulder, CO: Westview Press, 1995), 373–4.

55 Adam Ellick, "Hard-line Islam fills void in flooded Pakistan," *New York Times* 7 August 2010, A1, http://www.nytimes.com/2010/08/07/world/asia/07pstan.html?ref=world&_r=0, accessed 3 August 2014.

56 Yisrael Sasson, "She'elot," 149.

57 Avraham 'Antebi, *Sefer mor ve-ohalot* (Jerusalem: Mekhon ha-Ktav, 1983), 22–5; Ḥuṣin, *Ṣedakah u-mishpaṭ*, 111; the permissibility of vending holy artifacts was debated in the Talmud, the key issue being

whether funds received from the property sold could be used to obtain objects of lesser holiness (BT, Megilah, 25b-27b). For an eighteenth-century example, see Laniado, *Bet dino*, 61–2.

58 Heyberger, *Chrétiens*, 28, 362.

59 See, for example, Yehudah Kaṣin, *Sefer Maḥaneh Yehudah* (Jerusalem: Ahavat Shalom, 1989), 48.

60 Efrayim Laniado, *Degel maḥaneh Efrayim* (Jerusalem: Mekhon ha-Ktav, 1984), 1:57–8.

61 Antoine Rabbath, *Documents inédits pour servir à l'histoire du Christianisme en Orient* (Paris: A. Picard et Fils, 1973), 1:66–7.

62 Other examples were from Aleppo and included ibid., 2:8 (1686), 10–11 (1692), and 53 (1719).

63 Mariti, *Travels*, 1:287.

64 Tawtal, *Watha'iq*, 1:89–90.

65 Sentiments of some French diplomats were nothing short of anti-Semitic: The French consul in Aleppo in the early 1690s, Louis Chambon, had much contempt for Jews who were dressing as if they were European, and in their deceiving tactics were responsible for slow business (ACCM, J900, letters from 26 April, 22 June, 2 September 1692, and 28 May 1693). The French ill treatment of Jews was among the reasons Jews were seeking to exit their agreement with the French and find new European protectors several years later (ACCM, J901, letter from 23 July 1699).

66 Dawes's notebook entitled "disposals of charity money" is found in NA, SP 100/74/4. His name does not appear on it, but the handwriting is identical to that in a letter sent from Aleppo on 31 May 1764 that he signed (in the same file) and to the handwriting in his letters to the Reverend Lyttleton, found in BL, Stowe Ms. 754, 3:84–5, 124–5, 193–9.

67 Jesuits, *Lettres édifiantes et curieuses, écrites des missions étrangères* (Lyon: J. Vernarel, 1819), 1:100.

68 Russell, *Plague*, 18–20.

69 Russell, *Aleppo, 1794*, 77–8. When rumors of the plague began to spread in Aleppo in June 1772, the British consul there asked a local rabbi whether Jews were failing to appear at the synagogue. The consul's inquiry reflected the accepted wisdom that plague usually spread first in the Jewish quarter, and that the number of Jews attending daily prayers would diminish during epidemics. A decline in the number of praying Jews would have been an alarming sign for the consul and his men (NA, SP 110/58, report dated 29 June).

70 Shmu'el di Medinah, *She'elot u-teshuvot mahrashdam* (Israel: [1970]), even ha-'ezer, q. 239.

71 Rubin et al., *Community Recovery*, 37–43; Ronald Perry, "Disaster preparedness and response among minority citizens," in Dynes et al., eds., *Sociology of Disasters*, 147–8.

72 Ṣadkah Ḥuṣin, *Sefer ṣedakah u-mishpaṭ: 'al oraḥ ḥayyim, yoreh de'ah, ḥoshen mishpaṭ* (Jerusalem: Keren Hoṣa'at Sifrei Rabbanei Bavel, 1926), 9.

73 Oded Peri, “Temurot polițiot ve-hashlakhotehen ke-gormim bi-yisud awkaf bi-yerushalayim shel sof ha-me’ah ha-18,” *Katedrah* 21 (1981), 73–88.

74 Jelliffe and Jelliffe, “The effects of starvation,” 54–60.

4 Individuals Face Disasters

In the summer of 1527, Johann Hess, the leader of the Protestant Reformation in Silesia, wrote to Martin Luther to inquire about whether one was allowed to flee a plague-ridden place. The context was an epidemic that had broken out in Breslau (Wroclaw, Poland). Those who placed their trust in God and chose to stay were most admirable, Luther replied; but it was also permissible to follow one's survival instincts. Except for pastors, mayors, judges, and other public officers who may not leave, the decision on how to act was up to the individual. Yet, Luther noted, one could escape a plague-stricken place only after having made arrangements for one's relatives, servants, and other dependent persons.[1]

Luther's somewhat equivocal response revealed some of the acute moral dilemmas confronting people in the face of major calamities, in early modern Europe and elsewhere, in Christendom and other civilizations. How to perceive natural disasters and how to react to them were pertinent questions for Ottoman society as well. In this chapter, I look at individual responses to natural disasters in Ottoman cities and villages. I have already alluded to the problematic prevalence, in the literature, of the assumption that responses to calamities – and primarily epidemics – were closely related to religious affiliation. Here I will return to this issue and examine why scholars have accepted such a premise for Muslim societies. I will then present evidence showing that people's behavioral patterns did not quite fit this premise. This is not to say that religious beliefs played no role at all in human action in times of crisis. Rather, the array of social conventions and people's expectations of their religious group remains unclear. But regardless of whether responses to catastrophes fitted social and religious values or defied them, it is clear that people's conduct cannot be explained by religious beliefs alone. I will discuss other factors that influenced people's decisions, attested to by the historical evidence and considered by social scientists working in the interdisciplinary field of "disaster studies." Although sociologists and social psychologists use case studies primarily from the second half of the twentieth century and from the twenty-first century, the lessons they draw are very pertinent to Ottoman society, as we shall see.

The Problem of Flight

As I have shown in Chapter 2, the Ottoman state had various considerations when deciding how to spend its resources on disaster relief. While Christians and Jews did not always receive the same support or access to services as Muslims, there seems to have been no systematic discrimination against *dhimmi*s in Ottoman handling of natural disasters. Still, historians have assumed that when people made personal choices in life-threatening situations, their responses were largely informed by their religion. In light of our discussion in Chapter 3, such an assumption would make sense: As the state could not, or was not expected to, provide for all of its subjects, faith-based communities offered the collective safety net needed by the individual subject. One may assume that people who were thus heavily dependent on their communities would comply with its standards of conduct when making decisions about their fate and that of their family. As we have seen, however, the low literacy rates in earlier centuries make it impossible for us to tell what the accepted norms of behavior in times of crisis were, or whether there were any such norms at all. The question of what influenced people's personal choices therefore seems to remain open. Was there a correlation between the directives given in the authoritative religious sources regarding misfortunes and people's actual behavior? There is no better way to address this issue than through looking at the question of flight.

In Chapter 1, I have discussed religious scholarship on plagues and fleeing. As we have seen, most Muslim scholars agreed that plague was not in itself contagious; rather, it was God's ordained form of punishment (or blessing), just as other natural disasters were; hence there was no point in seeking refuge at another location. Some plague treatises (especially those written in the Ottoman period) did argue in favor of flight under certain conditions, but the majority opinion continued to deny its effectiveness. Christian and Jewish scholars paid less attention to this question, and it seems that, at least from a legal perspective, there was more room for personal choice in those religions than in Islam. Martin Luther's stance on the issue, as laid out in his long letter to Johann Hess, wavered between approval of and objection to flight. Philosophically, Luther differed from earlier Christian thinkers who advocated the kind of fatalism that viewed flight as futile, since God has already decided one's fate. That aside, in practice Luther acknowledged people could justify almost any response to plague and other disasters depending on the circumstances.[2] Later Christian authors in Europe were also divided on the question of flight. In the seventeenth century, Protestants

mostly supported the idea of fleeing plague (with the exception of priests and physicians, who were to stay and attend the sick), while Catholic authors, even those who did not rule out flight entirely, argued for relying on God, especially in times of plague.[3] In Judaism, several rabbis adopted a Talmudic recommendation subtly favoring flight from plague, yet overall the question received little attention in Jewish scholarship.[4] The gap between the fairly consistent view of Islam regarding flight, on one hand, and the Christian ambivalence and Jewish unconcern about it, on the other, is probably what led historians to assume significant differences between Muslims and non-Muslims in responding to disasters.[5]

The first major study of plague and Muslim society's response to it was Michael Dols's *Black Death in the Middle East*. Dols focused on plague epidemics in the Mamluk sultanate of the fourteenth and fifteenth centuries, including the Black Death of the late 1340s. The impression one gets from his findings on Cairo and other Middle Eastern cities during a long epidemic is of great social chaos, on one hand, and well-defined religious rules and norms, on the other. City streets were filled with beggars and the bodies of those whose families could not afford proper burials. Funeral processions were frequent, sometimes with several bodies carried on a single bier. No family celebrations took place, and many mosques stopped sounding the call for prayer, as their muezzins had perished. According to Dols, Muslims were also obsessed with ritual purity, and those not yet sick attended their neighborhood mosque daily and ensured all prayers were said without interruption. In mosques, lists of the dead were updated every morning, while those still alive prepared their wills, awaiting their fate. In addition, communal supplications for lifting the plague were held all over the city, in mosques and even outside in the desert.[6]

Dols noted that during epidemics some people fled from villages to cities (see Figure 4.1), and vice versa. But they were few, just as the Muslim jurists who sanctioned fleeing were a small minority. This pattern, Dols argued, had existed since the days of the Prophet.[7] The practical manifestation of religious ideals did not surprise Dols. The few who fled from epidemics, including Mamluk sultans and *emir*s, only reflected a deviation from normative behavior, which was entirely based on religion. Dols wondered whether "we can really explain the apparently pacific, collective and controlled Muslim reaction ... as largely the result of theoretical theological principles." For him, the answer was a clear yes: In the Muslim world, he argued, "we are struck by the fact that the interpretations and arguments of the Muslim jurists take fuller cognizance of the beliefs and practices of their community" than the arguments made in some European

treatises on the disease. Religion was, therefore, a very potent force in determining people's reactions to the plague – and more so in the Middle East than in Europe during the same period.[8] Dols's conviction that religion was the predominant factor behind people's reactions led him to suggest elsewhere that the situation did not change till the early twentieth century. This, he argued, was shown by the continuity of plague treatises into modern times, which attested "to the importance of the religious interpretation of plague for guiding communal behavior and limiting intellectual discussion."[9] Dols's work thus established the notion that Muslim normative behavior during natural disasters, especially plagues, prescribed remaining in the city and participating in prayers and other similarly impractical activities. This readily implies a broader conclusion: that Muslims, unlike Christians and Jews, refrained from taking practical measures when natural disasters struck.

Figure 4.1. Runaways fleeing from the plague. *Source:* Wellcome Library, London. Engraving by H. Gosson, 1630, reproduced under CC BY 4.0 license, http://creativecommons.org/licenses/by/4.0/.

A few years after the appearance of Dols's book, Daniel Panzac published his extensive study on plagues in the Ottoman Empire.[10] Like Dols, Panzac subscribed to the idea that religion was a key factor in people's conduct during natural disasters. He suggested that Muslims accepted the plague with utter fatalism and submission to divine will. This piety also underlay their avid readiness to assist those in need during disasters. European attempts to induce Muslims to take precautions such as confinement were usually met with suspicion and rejection.[11] As against this, when Christians and Jews felt it was no longer safe to remain in a city, many of them fled.[12] Panzac also studied the correlation between people's economic situation and flight from plague-stricken areas. He found that among Christians and Jews, the very poor usually remained, while those who could afford to do so escaped. Yet, he concluded, such factors were secondary, and human behavior during disasters was determined above all by religion. Although both Christians and Muslims saw the plague as a divine

affliction, Panzac pointed to fundamental differences between them: Christianity considered the plague a form of punishment for sin. To protect themselves from the plague, Christians used flagellations, persecutions, and flight. As the concept of sin did not exist in Islam, and since Muslims did not believe in contagion, they took no similar precautions. Religion, then, divided a city's inhabitants during catastrophe as much as it did in any other time.[13]

In a 2004 article, Heath Lowry discussed the connection between religion and people's attitude to epidemics. Lowry argued that the Ottoman viewpoint on epidemics underwent a marked shift during the period between the reigns of Mehmet II and Süleyman I: Whereas the former sultan rerouted his campaign trail to bypass epidemic-ridden areas, the latter refused to leave his own palace, or let others flee, even when members of his household were dying of the plague. Lowry attributed the shift to a change in the empire's religious orientation during that interim. Until its conquest of the Arab lands (1516–17), he argued, the empire viewed itself as a pluralistic polity, implicitly acknowledging the predominance of its Christian subjects but barely distinguishing between Muslims and non-Muslims. The sultans' religious commitment at the time was uncertain, and they embraced a form of folk Islam rather than its orthodox version. This changed with the conquest of the Arab lands, as the Ottomans became the foremost leaders of the Islamic world. As such, they adopted a rather fatalistic approach to epidemics: Flight was no longer sanctioned and the concept of contagion rebuffed.[14] Lowry, like Dols and Panzac, thus accepted religion as a key to explaining people's reaction to disasters: The shift in approach was borne by the change in religious outlook that had occurred sometime between the mid-fifteenth and mid-sixteenth centuries. But there were other causes for the conduct of sultans aside from religious fervor, as we have already seen. Judging by the testimony of Busbecq – whom I quote in Chapter 2, and upon which Lowry relies – no meaningful change in Ottoman atitude to fleeing from plague had actually occurred: The same sultan would denounce flight and later condone it, depending on the circumstances.[15]

The tendency to ascribe people's behavior in times of plague to religious sentiments resulted from the kind of sources on which historians have relied, and from what seems to be an all too frequent readiness to accept such testimonies at face value. These sources were mainly of two types: Arab chronicles and reports by Europeans (either in published travelogues or in archival correspondence). It is easy to see why research based mainly on the former kind (Dols) or the latter (Panzac) would associate disaster behavior with religion. Until the

eighteenth century, Arab chroniclers were almost exclusively members of the class of educated men trained in religious schools (*kuttab* and madrasa for Muslims). A pious outlook largely informed their writing, including when they discussed plagues, earthquakes, and their consequences.[16] Chroniclers were apparently prone to consider measures taken during epidemics that were consonant with the faith and to overlook other acts that, in their view, could not check the disease or improve one's lot. Examining chronicles by al-Maqrizi (d. 1442) and Ibn Taghri Birdi (d. 1470), Dols may well have been impressed by the preeminence of religion in Muslim conduct even under exceptional circumstances.[17] One might derive a similar sense from the eighteenth-century Damascene chronicler Ibn Kannan.[18]

Arab chroniclers were indeed inclined to report certain behavioral patterns and ignore others. But accounts of religious measures in times of disaster, such as mass prayers, do not necessarily indicate correlation between people's religious identity and their response to the calamities. They do suggest that piety played a major part in disaster response, but not that it was the sole or main motivation for it. Moreover, since these accounts deal primarily with Muslims, they do not tell us whether Muslims were more inclined, or less so, to participate in religious rituals than non-Muslims in such circumstances. For all we know, Christians and Jews took part in mass prayers and other ceremonies as often as Muslims.[19] We may soundly assume that religious practices were widespread in Islamic society in general; and while most people were engaged in pious acts when disasters occurred, it probably mattered less to which confession one belonged. Not knowing the real causes of natural disasters (save for some famines and fires), people of all faiths believed it was God who inflicted them upon His followers. Participating in mass prayers and demonstrations, taking actions to ensure ritual purity, and preparing for death by registering wills or dedicating *waqf*s, were measures common to members of all faiths. Nor did they exclude other forms of reaction: One could follow pious rituals and then flee the city, his or her departure having little to do with religious identity.

European travel accounts, consular reports, and mercantile correspondence pose a difficulty of another kind. All too often they betray the scorn their authors had felt for Muslim inhabitants of Ottoman cities where they visited or resided. European observers saw them, typically, as uneducated religious bigots with strange and low, if fascinating, manners and customs. Learning that Islam proscribed flight from dangerous areas and unaware of Muslim jurist debates on the matter, they were prone to ascribe to Muslims a fatalistic behavior in time of disaster. And as they were usually unable to distinguish

Muslims from non-Muslims,[20] they were likely to refer to all those who did not flee or hide as one homogenous group, and to attribute their immobility to Islam. Thus, in explaining why the 1761 plague in Aleppo spread so quickly, a British factor suggested that

> as the law of Mahomet forbids its infatuated followers to take any precautions against this scourge of the Almighty, the communication with infected persons or places is never stopped, in consequence of which the contagion spread daily, and seemed to be making regular approaches to Aleppo.[21]

As the city's inhabitants were mostly Muslim, this reporter understood what he saw as evidence of Muslim objection to taking precautions, a sensible assumption for someone with a patently superficial notion of Muslim attitudes to disasters. He might well have seen others in the city who did try to save themselves by fleeing but chosen to ignore them, offering his flat interpretation instead. A great many accounts by foreigners are marred by this kind of flaw.

The view that Muslims continued to go about their daily affairs during disasters seems to have been prevalent among European visitors to the empire. In the late-sixteenth century, Guilandinus Alpinus noted that plague often killed a large share of the population of Cairo because the city's Muslim inhabitants took "no care to obstruct [the spread of] or avoid [the plague], depending upon their principle of inevitable fate and predestination."[22] The seventeenth-century visitor to Turkey Jean du Mont similarly suggested that Turks believed in predestination and therefore did not take any precautions against the plague or other disasters. Oblivious to Islamic precepts, du Mont resorted to traditional Christian motifs in explaining that "when God designs to execute the fury of his vengeance on obstinate sinners, he sends an army of black angels to destroy 'em. They [Muslims] add, that every angel receives a bow and two sorts of arrows, to inflict either death or sickness, with orders to shoot their mortal arrows at those whom they find under the power of sin, and to direct the others at such who are only tainted with some pollution." Du Mont ascribed the relatively high survival rates to "white angels" who fought on behalf of the believers against the "black angels."[23] Later travelers and short-term residents in the empire provided similar accounts.[24]Still, when measures contrary to expected conduct were introduced, they sometimes made special mention of them. For instance, Giovanni Mariti, who visited Acre in 1760, was impressed with the governor's promotion of quarantine as protection against the plague. When the pasha went into confinement and a few others followed his lead, the city's *mufti* accused him of violating Islamic law. The debate that

ensued between the two fascinated Mariti, who noted it in his account.[25]

Having sojourned in Ottoman territories with little knowledge of Turkish or Arabic, and with few local informants, who in any case usually provided no more than anecdotal glimpses into Ottoman society, the travelers' accounts of Muslim behavior are of scant value for this study. As against this, testimonies by foreigners who resided in the empire for years, even decades, are often quite credible. Those who fulfilled important roles in missions of their nations to the empire, acquired local languages, interacted with the indigenous population, maintained ties with provincial governors and urban notables, and largely assimilated into Muslim society had better insights into the Ottoman empire. Such, for example, was the aforementioned d'Arvieux, who had intimate knowledge of Ottoman society and could more accurately assess behavioral patterns within it.[26] Even a tenure of eight years in Istanbul, during which the Reverend John Covel (1638–1722) traveled extensively and served as interim ambassador, was sufficient to obtain a closer view. Reckoning that Islam prohibited flight or confinement in times of plague, Covel, who witnessed an epidemic in Edirne, admitted that reality was more complex:

> The best sort of people fled to other places, as the Turkes likewise themselves did from Adrianople to their houses here, for that same is a story that they are not afraid of the plague, because their fortunes are wrote "in their forehead;" for all fled, but such as were poor, or had offices about Court, and could not get away. There dyed that year about 100 persons out of the Vizier's own house; and really, those that are forc't to stay by it value it no more then we do an ague. But this is the same amongst Jewes, Greeks, Armenians, and every body else.... All slaves and poor people, so soon as they are dead, are wrapt in some pittiful covering (perhaps nothing but an old mat), and so laid upon a Hamal's or porter's back, and caryed away to his grave, without any more adoe. Infinites of Turkes came out of the Town and lived in Tents, as well as we; yet many Turkes came or sent out their women to their countrey houses there.[27]

Exodus from an epidemic-ridden town, according to Covel, was a function not so much of one's faith but more of one's economic status or other commitments. Like Covel, Alexander Russell, who spent many years in Aleppo, noted the dissonance between Muslim desirable conduct as he understood it and people's actual reactions to plague.[28] Similarly, European historians of the Ottoman Empire pointed to the

importance of economic and other personal considerations in motivating people to leave or stay in a disaster area, no less so than religious factors. Already in 1686, the historian and diplomat Paul Rycaut (also Ricaut, 1629–1700), who served in the British embassy in Istanbul and as consul in Izmir, recounted that Turks who had means usually ignored the advice to stay put, and left the city for the countryside during plague outbreaks.[29] A century later, a French historian, Elias Habesci, reported that while in the past no Muslim would dare flee the plague, in his time many did so, especially from among the "gentry" – an allusion, again, to economic status as a determinant in people's reaction to plague.[30] I shall return to such economic motivations later in the chapter.

Historians in recent years, recognizing the problematic nature of European traveler testimonies, have tried to look at the question of flight differently, exploring more sources and incorporating new approaches in the study of Ottoman social history. Unsurprisingly, some of them have reached conclusions opposite to that of Dols and Panzac. In a pioneering study, Sam White has deconstructed the old historical narrative of plague in the eastern Mediterranean, which assumed that "traditional Islamic precepts taught Ottoman Muslims to accept plague as the will of God, encouraging a fatalistic indifference to the disease." It had been widely accepted, he has noted, that "the Ottomans took no significant measures to combat infectious disease or even to flee the regular outbreaks of plague until the unpopular imposition of quarantine during the Tanzimat."[31] Surveying old and more recent studies, White has acknowledged that the paradigm of Muslim fatalism was based on Arabic chronicles and European accounts. He has argued that even in these sources one finds too many instances of Muslims fleeing plague-stricken areas to be dismissed as exceptions. Furthermore, evidence he has produced from the Ottoman archives (some of which has also informed my own exploration) plainly indicates that if religious codes ordered people to stay, reality often dictated different priorities. Introducing environmental considerations, which historians had hitherto paid little attention to, White has concluded that the "Ottomans did often take active measures to confront infection."[32]

And indeed, as White has pointed out, Ottoman accounts written in Turkish and Arabic, along with European observations, attest to many instances of Muslims leaving disaster areas. Thus we hear of a Muslim arriving in Damascus in 1632, having left during a plague,[33] and are told of a Mühürdar Paşa who had fled the plague (*tâûndan firâr edüb*) that occurred in his village on the island of Chios in the 1670s[34] – one of many instances of Muslims and non-Muslims fleeing disaster that

appear in Evliya Çelebi's ten-volume travelogue, which spans more than fifty years.[35] Both Alexander and Patrick Russell reported that in the two long plague epidemics they had witnessed in Aleppo, in 1740–2 and 1760–2, people of all religions had left their homes or the city entirely.[36] During the famine that beset Syria in 1757, people from many cities and of all faiths were observed deserting their homes in search of food.[37] And a study on the history of the plague in Trabzon in the mid-sixteenth century has indicated that people escaped the city during an epidemic, and not in trifling numbers: The lessees of *hamams* approached the court and demanded a reduction in their rent, claiming that the exodus of people was so great it left the baths nearly deserted, undercutting their livelihood.[38] Sometimes a series of disasters prompted larger-scale population movements to faraway places, with many eventually not returning to their hometown. This happened in Safed at the end of the sixteenth century,[39] and elsewhere throughout the empire in the sixteenth and seventeenth centuries.[40] Given these findings, the premise that people's responses to plagues were related to discussions on contagion and permissibility of flight in the scholarly tradition would seem to have lost its validity.

Still, scholars are yet to abandon the assumed effect of Muslim plague treatises on people's actual behavior. Faced with more reports of people fleeing from disease-infested areas, some historians writing recently have turned to the works of Ottoman jurists for explanation. In her study on plague in the empire during the fifteenth and sixteenth centuries, Nükhet Varlık has quoted works by Ottoman authors who justified flight from plague areas on Islamic legal grounds, and linked them to a migration increase due to disease throughout the empire.[41] Advocating a similar interpretation, Birsen Bulmuş has taken it still further. On the basis of a number of plague treatises that implied approval of fleeing, she has argued that flight was "the most common precaution people took in the Empire to ward off plague." A single piece of evidence from an early nineteenth century plague treatise sufficed to convince her that, from the sixteenth century on, "most Ottoman subjects understood plague as a naturally occurring phenomenon that required a physical response; namely, leaving the area."[42] Both Varlık and Bulmuş, then, seem to believe that flight was highly common after the mid-sixteenth century.

Varlık has argued that a new understanding of plague in Ottoman society and a legal framework permitting flight, created by scholars such as Taşköprüzade and Ebusuud, led to more people leaving plague-affected areas. Once perceived to be a punishment sent from God, plague was understood in a natural and medical context in the

sixteenth century. Since more and more people believed plague to be caused by miasma, "popular wisdom recommended leaving disease-infested cities." This popular wisdom was the product of "rapid and dramatic changes [that] took place in sixteenth-century Ottoman society with regard to perceptions of and responses to epidemic diseases," as these were reflected in plague treatises and legal works from the period.[43] Ultimately, though, we do not know to what degree such works indeed reflected Ottoman societal trends because their authors, by virtue of their ability to write them, belonged to the tiny segment of the Ottoman intellectual elite. For the same reason, it is hard to tell how influential such texts really were in a society that was predominantly illiterate. As studies by Alan Mikhail and Sam White have shown, flight had always been one of several possible responses to plagues, famines, and other natural disasters, practiced by people of all faiths and triggered by factors that had little to do with religious considerations or the arguments presented in plague treatises.[44]

What remains unclear is how common flight really was. Did most people react to impending disasters by deserting their town or village? Or was it a measure resorted to by only few? In Europe, where religious interdictions against flight were seemingly scarcer and less clear-cut, most people still did not leave their homes when facing plague. It is true that fleeing was common in Europe already during the Black Death: Jean Biraben has quoted many examples of flight from plague from Spain, Italy, Austria, Sweden, and France, starting in the mid-fourteenth century. Yet, as he has shown, those choosing to flee were almost always members of the elite. They included kings and potentates, members of parliaments and city councils, physicians, and other wealthy individuals. Biraben acknowledged that the departure of influential individuals from cities inspired others to leave, and consequently some towns became virtually deserted. But that was not the common outcome. Most of the poor people and many traders and business owners did not flee, because it was riskier for them to leave than to remain: They could not afford to be away from their source of livelihood for long or had no place to stay in the countryside. In some places, he has shown, it was the inability of the poor to flee that prompted others, who could have afforded to go elsewhere, to remain and assist those in need. From the sixteenth century on, Biraben found more examples of doctors, surgeons, nurses, religious men and women caring for others, confessors, and city councilmen who refused to abandon their towns. Members of this urban leadership stratum often advised others to leave, even when they themselves did not. This tendency of people in public office to stay behind gradually developed into city regulations against leaving in times of plague. From the late-sixteenth century, many cities had regulations prohibiting flight from

plague, an expression of interventionist policies designed to increase governmental control over the citizens, and a result of growing realization that flight, which meant enhanced popular movement, actually helped spread the disease. Antiflight laws, which also banned those who did leave from returning, became widespread in Europe and Russia.[45] Such legislation further curbed the already limited share of the urban population that would flee epidemics.

In Ottoman cities, likewise, most urbanites did not flee during epidemics or subsistence crises and did not seek confinement (a practice common among foreigners and resembling quarantine). During the plagues in Aleppo in the early 1740s, one observer noted, the streets were only slightly less crowded than usual, the markets remained open, and every commodity was still available.[46] Another account from the city in a time of famine during the following decade does not portray desolation, but rather streets abounding with starving people, fifteen or twenty of whom were dying daily.[47] Muslims were not alone in displaying such indifference: Visiting plague patients in 1760–2, Patrick Russell was time and again astounded by the carelessness with which Jews approached their sick relatives.[48] In like manner, during a famine in the early nineteenth century, many Aleppo Jews remained in the city and carried on with their daily business when not preoccupied with searching for food. They attended prayers for rainfall and the lifting of famine only after a rabbi explicitly demanded that they do so.[49] We are also told of Europeans, mostly missionaries, who ignored their state's confinement procedures during plague epidemics and had close contact with the sick, sat at their bedside, or washed their bodies after death. [50]

Ottoman documents suggest that in areas afflicted by plague, more people died than fled and that, in general, the number of individuals who left their homes not to return was relatively small. Thus, for example, plague in 1699 killed most of the people in the Cisr Mustafa Pasha neighborhood of Edirne, while only a few fled from there.[51] In the same year, a postplague report for the *qaza* of Ipsala (about 120 kilometers south of Edirne), prepared for tax reassessment purposes, listed the names of those who would not be able to pay their taxes: Of the eighteen persons mentioned, only five had fled (*firardır*), while ten had died (*fevt*), three were retired workers (*amel-i mande*), and one was insane (*mecnundur*).[52] Another report from May 1699 lists plague victims by town in the province of Karadağ (in northeastern Turkey, near Erzincan): 130 people were counted dead, but none were reported to have fled the area. On the basis of these data, the province qadi asked for tax reassessment. Had more people been missing as a result of flight, it would have made sense for the qadi to list them as

such to obtain a more substantial reduction in taxes.[53] Finally, a letter sent from Ormenio, a village in the sanjak of Çirmen (on the Greek-Bulgarian-Turkish border) in 1708, asked for a reassessment of the *avarız, nüzul*, and *celebkeşan ağnamı* (sheep supply) tax rates, because most of the people in the sanjak's villages had died, while some of the rest – a small share – had fled to other places.[54]

Local qadis, who petitioned the government for disaster-related tax reductions, were perhaps better equipped than the central authorities to assess the situation in their provinces. Their petitions, too, create the clear impression that plague or famine usually caused only a minority of people to flee. Here again are a few examples: In 1660, the people of Boyalıca, a village in the province of Göynük (near Antalya), sent a petition to the Porte asking for tax adjustment. It stated that most of the village inhabitants had died in a plague, (only) a few had run away, and the rest who had remained were too poor to pay the bill.[55] In 1680, a plague epidemic in Çan, in the province of Biga (about 250 kilometers southwest of Istanbul) resulted in the death of most people, whose names were given in a long registry; only a few, again, had relocated.[56] A petition sent from Ankara in February 1712 similarly reported that most of the residents in several adjacent villages who were afflicted by plague had died, while just a few had fled.[57] And a series of natural disasters, including a plague and famine, that hit Adana before 1763 left most of the people dead; only a small number had fled the area, mainly as a result of atrocities committed by certain groups there rather than of fear of disease or starvation.[58]

There were also reports that indicated the flight of a more substantial segment of a region's population, primarily non-Muslims. A petition to Istanbul by a *jizya* collector, sent a few years after 1650, requested the redistribution of tax duties for Lofça, as harsh winters and famine caused most of the *re'aya* to flee.[59] After plague in Edremit (about 150 kilometers north of Izmir) in 1699, most of the *re'aya* had reportedly dispersed willingly, some of them were forced (it is unclear by whom) to relocate, and others joined the military.[60] And a plague epidemic that affected the wide area between Yenişehir and Tırnova (both in western Anatolia, about 175 kilometers apart) in 1720–1 caused the non-Muslim inhabitants to scatter.[61] Large-scale non-Muslim flight from epidemics continued to be reported during the eighteenth century.[62] Only seldom were non-Muslims explicitly reported to flee in small numbers during epidemics.[63]

Should we assume, then, that non-Muslims usually fled disaster areas in greater numbers than Muslims? Not quite. The preceding examples notwithstanding, it seems that flight in the face of disaster

was the choice of only a minority among Christians and Jews just as it was of Muslims. Accounts are often misleading when it comes to non-Muslim subjects. Consider the following case: A petition submitted to the Porte in 1795 reported that the two cities of Rusçuk (Ruse) and Yergöğü (Giurgiu), presently on the opposite sides of the Bulgarian-Romanian border, suffered from a plague epidemic. The disease killed a great number of non-Muslims and caused some of them to flee. The original petition reads, "Many non-Muslims died and many, in fear, left their birthplace and fled to Wallachia" (*vafır re'aya helak ve niceleri dahi havflarından vatanları terk ve eflak canıbına fırar*). When Ottoman scribes summarized the report, however, they changed the wording so as to indicate that "most non-Muslims fled" (*ekser re'aya fırar*).[64] This instance, in which both the original petition and its scribal summary are available to us, is rather exceptional: Usually original petitions were not preserved, and we have to contend with copies prepared by the Istanbul scribes (for an example of an original petition, see Figure 4.2). As this example shows, original texts were not necessarily reproduced verbatim and might well have reflected, perhaps inadvertently, the worldview of those who copied them. Quite probably, Ottoman officials believed non-Muslims tended to flee disaster areas, and their summarized reports attested to this perception of what would be a typical response of *dhimmis* to natural disasters. More realistically – as we have seen in examples from Europe – flight implied immense financial difficulties to most people, except the wealthy, and was not likely to have been adopted widely, one's religious faith regardless.

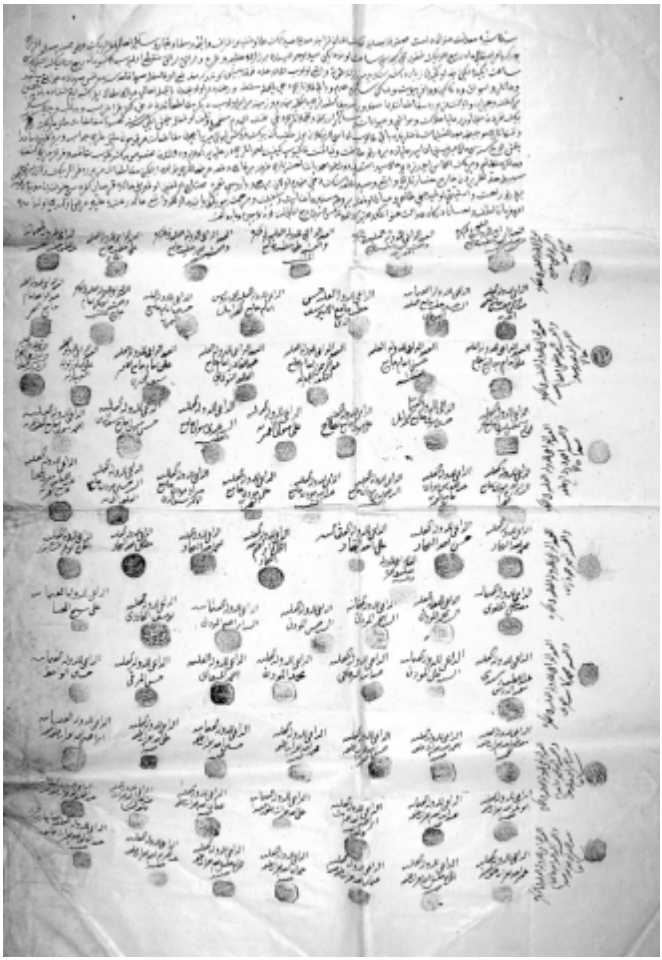

Figure 4.2. A petition sent from Sayda (also Sidon, in present-day Lebanon) to Istanbul requesting relief after the earthquakes of 1759–60. The text of the petition appears at the top; the rest includes the petitioners' original signatures and seals. *Source:* BOA, C. DH. 11626. Courtesy of the Prime Minister's Office Archives, Istanbul.

Not leaving one's home did not necessarily mean being utterly passive. Famine, especially, drove people to look for food everywhere and even consume products that were normally inedible. When famine hit Ottoman troops in Anatolia c. 1623, weak horses, mules, and camels were slaughtered to sustain the hungry soldiers.[65] During a horrible famine in Aleppo in 1757, a French consul witnessed parents selling their children to slavery for a pittance that would buy them food for a few more days.[66] In one extreme account, a woman is said to have eaten the body of her dead child.[67] Before turning to such radical measures, however, the hungry often sought the help of those still in a position to offer it. Europeans residing in the Levant were an

obvious target: Thomas Dawes, the almoner of the British Levant Company in Aleppo, reported during a famine in 1766 that he had "never had so many applications for charity, as since the past two months, and their condition is by no means mending, if I may judge from the number of petitions in favor of distressed families, that are still daily sent in to me."[68]

Even without accurate population figures or head count of disaster victims from the Ottoman Empire, one can conclude that flight was one of a number of options at people's disposal. It was a common method, but by no means one that suited the majority of the population. Looking at some of the factors that had shaped responses to natural disasters, in the Ottoman Empire and in world history in general, will help explain why.

Explaining Disaster Behavior

Perhaps the most obvious factor affecting people's responses to natural disasters was popular perceptions concerning what one should and should not do in times of crisis. As shown earlier, a correlation between such common beliefs and the guidelines presented in the Islamic scholarship is difficult to establish. While these guidelines are clearly stated, there is scant evidence regarding concepts about epidemics and other disasters that circulated in Ottoman cities' cafés, markets, or houses of worship. Fragmentary references suggest that such popular notions did exist. For example, the Damascene chronicler Ibn Kannan tells us that in 1712, he attended a class at the *madrasa al-khadijiyya* in Damascus that dealt with diseases, their origins, and treatment. The participants read sections on prayer for the sick from the Ḥanafi scholar al-Nasafi's *Kanz al-daqa'iq*, a thirteenth-century treatise on Islamic law.[69] We have no clue about the composition of the audience that attended the lesson along with Ibn Kannan; nor do we know whether they were literate as he was, and hence naturally attracted to scholarly pursuits. But the anecdote does suggest that knowledge from the scholarly tradition was imparted orally to people who might not have had firsthand exposure to it. Notions about disease, directly or loosely based on Islamic scholarship, could thus circulate among parts of the population, including on the assumed preliminary signs of epidemics (e.g. that plague must first erupt in a city's Jewish population, or that disease that does not spread quickly cannot be plague).[70] Rumors about other disasters were also discussed in coffeehouses and markets. Thus in Damascus in 1742, the common people were obsessed with the thought that a damaging earthquake was imminent, one that would turn men into women and cause the city's rivers to flow with food. The chronicler al-Budayri complained

that such superstitions (*khurafat*) were all people would talk about that year.[71]

These, and a handful of similar allusions in the sources to popular perceptions of disaster, do not allow us to assess the role such ideas played in people's actual reactions. We may only presume that, as in any society, what people knew and believed had an effect on their behavior in life-threatening situations. That such perceptions did exist, and that they might have been tied to the scholarly tradition, does not necessarily connect people's responses to their religious faith. It only suggests that beliefs in supernatural powers as the source of natural disasters inspired discussions in a city's public spaces about impending calamities. Quite probably, such discussions were not limited to Muslims; Christians and Jews took part in them as well. Beyond this general observation, one needs to consider other factors that affected people's reactions to disasters that had little to do with religious beliefs.

Economics

Economic status was an important factor in people's reaction to natural disasters. Studies of catastrophes in medieval and early modern Europe have shown that the impecunious were always exposed to greater risks during disasters, suffered the most, and on the whole had fewer options to address the situation than those who were better off.[72] During the Great Famine of 1315–22, the poor were the first to starve, being unable to procure food; and because of malnutrition they were, more than others, susceptible to diseases later in life. Starvation drove such poor groups to begging and seeking food in unconventional ways.[73] During the Black Death (1347–50), the indigent lacked means to prevent contagion: They lived in filthy and unventilated houses, washed their clothes seldom, and made little use of public baths. Bad hygienic conditions caused the plague to ravage poor neighborhoods first, and those living in them had no means to escape.[74] In later centuries, quarantine that was introduced for checking the plague had a devastating effect on day laborers and the poor, as it disrupted routine commercial activity. While the rich could subsist for longer periods when their city was cut off from the outside, others were reduced to begging.[75] Epidemics produced more regulations that limited the poor's prospects of earning a living, as was the case in Venice. In later times, some European governments began to assume responsibility for their indigent citizens. This happened in Venice in the sixteenth century,[76] as well as in England, where the aftermath of the Great Fire of London saw far-reaching construction that also addressed the needs of the poor.[77] In the Ottoman Empire,

however, such changes in hygienic and sanitary policy would occur only in the nineteenth century. Until then, being at the bottom of the economic ladder meant fewer options for escape and survival.

The connection between people's economic condition and the ability to withstand natural disasters was apparent outside Europe as well. During famines in Ming China (1368–1644), the poor were entirely dependent on the wealthy, who had surplus grain and controlled its price and availability in the markets.[78] The poor suffered from starvation, disease, and other miseries and resorted to survival methods such as selling relatives, eating the inedible, and even cannibalism. Natural calamities occurred during the Qing period (1644–1912) too, with special intensity during the eighteenth and early nineteenth centuries, but their consequences were mitigated by famine prevention and relief efforts, such as the setting up of soup kitchens, the transfer and storage of grain, and tax remissions, which helped the poor survive such disasters.[79] Similarly, in Tokogawa Japan of the eighteenth century, the lives of the poor and peasants depended in times of hardship, such as during subsistence crises, on government food-loan programs and distributions of charity in major cities.[80] In Mughal India, too, the poor suffered the most from epidemics and famines, and survived by resorting to food and other charitable distributions, or through selling property and children.[81]

Studies on twentieth-century disasters for areas outside the Middle East have established a link between minority groups, whose socioeconomic status was often inferior to that of the majority, and vulnerability to disasters. Poor minority communities usually experienced greater difficulty during disasters and responded to warnings less effectively than others. Sociologists have shown that people with low income and little education are less likely to interpret disaster-warning signs as signals that require action.[82] In addition, in disasters, preexisting economic hardships cause people to withdraw from social networks and favor, instead, small cohesive social units. This in turn leads to fewer interactions between groups, poor flow of information, lack of trust, and greater difficulties in rebuilding communities and reducing vulnerability to future disasters.[83]In the aftermath of Hurricane Katrina, one study has found a direct connection between economic ability and people's decision to evacuate, a correlation dictated by the economic sacrifice entailed by departure. Because African Americans were massively represented in the lower economic strata of the New Orleans population, it was found that whites were more likely to choose evacuation than blacks.[84]

Panzac has observed that economic status influenced people's

reaction within Christian and Jewish communities: The more affluent fled while members of the middle and poor classes remained. But Panzac overlooked the occurrence of the same behavior pattern in Muslim responses as well.[85] In reality, economic concerns affected members of all communities alike. Here as elsewhere, economic disparities had a direct bearing on people's ability to leave, hide, or continue their lives as usual. The level of housing and comfort one could afford affected one's chances of surviving a disaster. The house of the Damascene notable 'Abd al-Muʿṭi Çelebi was one such place: a complex of seven courtyards, with numerous fruit trees and many servants. He was reported to have always had all the provisions he needed, and in large quantities.[86] Living in large houses, the wealthy could afford to hide in them for weeks or even months without leaving; hoarding supplies, they could subsist without difficulty during famines, while the poor were dying on their doorsteps.[87] Behind high walls and locked gates, they were less susceptible to epidemics, as cadres of servants kept the house and its courtyards tidy. The rich could also afford to leave the city when they deemed it too dangerous to stay; their servants, who could not, would remain behind to take care of business. Thus, a French consul reported the exodus of wealthy merchants from Aleppo during a famine in 1758, while the bodies of the poor who had died of starvation covered the streets of the city.[88] Wealthy merchants could have been Muslim, Christian, or Jewish; their economic condition probably affected their decision more than their faith.

Merchants of all religions left their city only if they could afford to do so and if they could find arrangements for their businesses.[89] In partnerships between Jews, for example, it was common for one party to remain at home during an epidemic while the other worked. Yet as one rabbi ruled in a dispute between two Jewish partners, the one staying home or leaving the city would not be entitled to his share for the days he did not work – a condition that allowed only the well-off the privilege of absenting themselves.[90] A person's whereabouts during epidemics were thus affected at least to some degree by his or her economic situation. One could be affluent enough to hire others who would provide the family with food or take care of business; or be destitute and turn to those who were better off, offering services for cash or kind to avoid starvation. For the wealthy, finding employees at such times must have been easy: With many impoverished people around, a dying servant could always be replaced. When Alexander Russell was in Aleppo during the plague epidemics of the early 1740s, he commented on the ease of finding servants at a time when much of the city's commercial activity was already suspended and many merchants had left.[91]

Hiding at home when economic conditions permitted did not always eliminate the risk of contracting the disease. Patrick Russell, exploring the causes for the spread of plague in Aleppo in the 1760s, noted that even in families who hid in their homes, individuals often became sick. He ascribed it to their contacts with their employees, who took care of their business in town and supplied the family with provisions while they stayed in confinement. Russell reported "instances of a like kind in families of the native [i.e., Muslim] surgeons, whose shops are at a distance from their houses." Russell himself employed someone "to bring intelligence, and occasionally to visit infected houses," while he was in confinement.[92] Jobs out of the house were considered, and often were, more life threatening, and people took them only because such employment was the only alternative to a certain death from starvation. Being poor, they had little choice.

Information

To respond to a threat of any kind, one first has to believe there is imminent danger. How information on impending or actual disasters reached people and how they perceived such knowledge affected disaster-related behavior. Sociologists probing the relationship between communications and disaster have posed a few intriguing questions, some of which are relevant to our study: How do people obtain information during crises? How is that information interpreted? And with whom do they normally share it?[93] The second point, interpretation of the message, is especially important: If people are skeptical about danger warnings, they are less likely to view the situation as one calling for action. For a perception of any kind to emerge, certain conditions must be met. Above all, the source of information has to be credible and the contents of the warning message specific. Sociologists have found that the more concrete and consonant with other reports a message was, the better it was received. An ambiguous message would often lead people to assume they themselves were not at risk, and to avoid action; a multitude of conflicting reports would prompt panic and make people try to escape.[94]

In the Ottoman Empire, we hardly ever hear of accurate reports, because there were no means to procure reliable death or damage assessments, predict a flood, or estimate the severity of an epidemic. Rumors about an upcoming disaster could become the day's topic on the street and at coffeehouses.[95] But as they were not specific, people often hesitated to take them seriously. Patrick Russell observed indifference to news about the plague in the midst of an epidemic in April 1761, which coincided with the month of Ramadan: In packed

coffeehouses all over Aleppo, the plague was discussed in general terms, with most people not believing it would spread beyond the poor neighborhoods.[96] There, and in other Ottoman cities, people's skeptical view of news on upcoming disasters resulted largely from their basic concept about natural occurrences discussed previously, which usually associated a plague or an earthquake with God's wrath, or with a solar or lunar eclipse. People normally mistrusted reports about such events that were not fully compatible with popular beliefs, such as the requisite of prior omens. The absence of such earlier signs would prevent most people from taking action.

Pervasive ignorance about disasters and the proper response to them was another factor in shaping people's conduct. As I have explained earlier, most people had no direct access to books or to firsthand knowledge of any kind. Even works that had been copied numerous times, such as al-Suyuṭi's treatise on earthquakes,[97] were apparently unknown to most people; and the books that did exist in the small Ottoman urban libraries were poor in information on why disasters happened beyond occult or religious explanations. A common way of conveying written intelligence in illiterate societies was through public reading of texts, a practice that in the Middle East was widespread until the twentieth century.[98] Knowledge and information were further circulated mostly in coffeehouses and public baths (*hamams*).[99] But when calamities continued for a long time, as in severe plagues or famines, places of public reading, coffeehouses, and *hamams* became deserted and ordinary social interactions were often suspended. How did people obtain intelligence then?

During the 1760–2 epidemic in Aleppo, khans throughout the city became meeting points for transmitting information. Khans were the gathering places for merchants, who were better informed thanks to their business ties. When a plague case was reported at one of the khans, it immediately became known all over town, Patrick Russell observed. The place outside Russell's own window, whence he dispensed advice and medication at a safe distance from the sick, was another popular gathering spot. Known all over the city for what people believed was his effective treatment of plague, Russell's window was a magnet for plague-sick individuals and their family members, whose numbers sometimes reached several hundred a day. The place became an information exchange hub, where those who were waiting their turn carried news of the plague from other parts of the city.[100] The news obtained under Russell's window was apparently reliable and specific, and arrived at a time when people could no longer deny the presence of plague in town. Yet, as far as one can tell, most people still did not abandon their town or suspend their daily

activities. For some, their economic circumstances were enough to prevent them from taking such action.

Psychology and Biology

Sociologists and psychologists studying human behavior during severe adversities have traced recurrent patterns of individual and collective reactions and have offered some illuminating explanations for them. Derived mostly from twentieth-century cases, their findings and observations may prove valuable when projected back to earlier periods as well.

The classical psychological-sociological approach to understanding human response to disaster rested on a concept of panic, defined as "a collective flight based on a hysterical belief," which occurs when people sense an imminent threat to their lives or property.[101] According to this approach, also known as the "entrapment theory," people flee from a disaster area if they believe that a major physical threat is present and the escape routes are closing.[102] Studies by psychologists relied on four basic assumptions: "1.The typical response to danger is self-preservative aggression or flight.... 2. Flight is directed toward an objectively safe place, away from danger.... 3. Physical dangers are more disturbing or stressful than other kinds of events. 4. Flight is prevented from occurring in danger situations by social control."[103] All four premises seem consonant with our view of natural disasters in Middle Eastern contexts, but the last point is of particular interest to us, because it implies that religion, as a form of social control, can prevent people from leaving a disaster area or otherwise affect their actions. People in the Middle East usually followed the rules and norms of the social (i.e., religious) group to which they belonged. For Muslims, religious precepts explicitly precluded succumbing to a sense of danger; hence panic was not likely; nor was self-preservative aggression or flight.

Recent studies have cast considerable doubts on these assumptions, thus markedly changing our view of human behavior during disasters. Regarding the first premise, it has been shown that human conduct under threat of death is marked not by aggression or an urge for physical safety but rather by a need for social affiliation. These studies have been inspired by the "attachment theory," originally developed by John Bowlby in the 1950s and 1960s, which focuses on the instincts that drive people to establish strong bonds with particular others. Attachment develops from infancy and endures throughout adulthood, its typical expression being groping for familiar places or people, such as friends or relatives. Such ties are meant to address the

needs, both physical and psychological, of securing protection for survival, especially in dangerous situations.[104] Disaster studies have found that imminent danger did not exclude but rather boosted people's concern for their loved ones – the objects of their attachment – and the urge to protect them before seeking their own refuge. Psychologists have observed that those who did flee a disaster-stricken area were either foreigners, who were not attached to the place, or individuals without families.[105] This pattern indeed fits Patrick Russell's testimonies about patients whom he visited: In several cases, when one contracted plague, family, servants, or students took care of the sick person and continued even when the disease spread to some of them. Only when the situation was clearly beyond control, or after the death of that person, did the family leave the house.[106] In one case, when the wife of a wealthy European Jew who resided in Aleppo became ill, household members immediately fled, but her husband and a few of the personal servants refused to go.[107]

Regarding the second premise – flight's being directed toward an objectively safe place – scholars have shown that people do not always flee to a remote and hence patently safe location. Often they choose to leave for places with which they are familiar and that are therefore subjectively perceived to be safe. Even when moving, the need for social affiliation (which increases one's sense of safety) sometimes superseded the drive to escape to a remote place. People left along with other familiar individuals, or looked for them immediately upon arrival in their new location.[108] Here, again, findings of the present study are in agreement with those of the other works: In sixteenth-century Damascus, and possibly also later, it was customary for some Jews to leave the city in convoys when plague struck and to reside in groups in neighboring villages.[109] Similarly, the earthquake that shattered that city in 1759 led Jewish, Christian, and Muslim families and friends to regroup in the gardens surrounding the city.[110] People from Denizli resettled in the town's provinces, while others built temporary housing in its gardens after an earthquake shook the area in 1717.[111] And in 1822, after an earthquake had demolished extensive parts of Aleppo, its fleeing residents soon gathered in one area on the city's outskirts, where they set up a temporary tent city.[112] Sticking together with relatives and friends seemed to be the prime priority under these tense circumstances.

As for the third and fourth assumptions, regarding physical dangers and social control, studies of human conduct in stressful or dangerous situations have also shown that physical danger was perceived as less distressing than one's separation from one's family, home, or neighborhood. Exploring issues of mental health (ever an intricate

matter to study, let alone in an Ottoman historical context), scholars have found that disruption of family bonds was sometimes more detrimental to a victim's health than physical damage. This led to the understanding that a familiar environment, rather than some form of social control (such as religion), could potentially calm even the severest apprehension, while being alone or with strangers could intensify one's anxiety.[113] In view of these observations, Anthony Mawson in a recent study has suggested that since most people are in familiar surroundings when disaster occurs, their expected behavior should be "affiliated bunching" rather than flight. Even when people do escape, they tend to do so as a group. The only exception would be strangers or those without friends and family, among whom even the slightest threat could cause flight, with the aim of seeking faraway familiar people and places. Thus, Mawson concluded, people's behavior during disasters tends to disregard societal conventions one would normally feel committed to follow.[114] In our context this may be a bit confusing, because a religious framework was sometimes one's only "familiar environment." Where this was so, one would expect to see behavior compatible with religious expectations. However, since Ottoman communities were not segregated and most people were members of several social circles, one cannot assume that the religious community was everyone's "familiar environment" in the psychological sense.

The "attachment theory" offers one possible explanation for human behavior during disasters. It may not account for all cases; and it seems inadequate for explicating some types of behavior documented in the Ottoman period. The theory is clearly incompatible with the French consul's account, cited earlier, of parents selling their children into slavery during famine. Nor does the theory explain bread riots when food was scarce, for according to its precepts we would expect a quiet response. Indeed, famine seems to represent a kind of disaster apart from the rest, whose effects may produce human reactions inconsistent with the attachment theory.

Psychologists have scrutinized human behavior during this particular type of calamity. When starvation persists for a long time, it has been observed, those experiencing it suffer from apathy, irritability, or depression, which often lead to suicide or extreme aggressiveness.[115] There is also a narrowing of interests, whereby almost all of a person's waking hours are spent searching for food. Things normally considered inedible are consumed, such as seeds, roots, wood, earth, exhumed animal carcasses, and even human flesh. In acute famines, any measures that can help procure food are taken, including theft, riots, and the selling of children. Starving individuals

seeking food often increase the geographical range of their activity, a tendency that on a large scale results in population movements. Famines also lead to the disintegration of the family and friendship bonds underlying the "attachment theory." In severe famines, human relationships slowly disappear, giving way to a "strongest survives" strategy. When leaving a place to search for food elsewhere, the old and weak, including children, are sometimes left behind.[116] Such behavioral patterns were observed, for example, in the Great Famine of northern Europe in the early fourteenth century,[117] in famines during the Qing period in China,[118] and in the potato famine in Ireland in the mid-nineteenth century.[119] If famine is seen as a kind of adversity apart, with an impact on human conduct harsher than other natural disasters, that should explain the cases in the Ottoman period for which the attachment theory seems inadequate. The attachment theory is useful for understanding human reaction to most types of disaster; but with famine and its extreme ramifications, other responses are observed, both in contemporary studies by psychologists and in our findings from the Ottoman period.

Another difficulty with using the attachment theory to explain responses to disasters is that, according to this concept, the object of attachment itself may be an abstract idea rather than a person. Psychologists have described belief in God and a routine of religious practices as forms of relationship equivalent to those people have with each other.[120] One scholar has suggested that some people perceive of God as a protective and caring parent who would always be there for them when needed. As such, God was an "adequate attachment-figure."[121] "God 'really' is an attachment figure for many believers," Lee Kirkpatrick has argued,[122] suggesting that God offered believers a secure base that was always present even when other attachment figures were gone. Research has shown a rise in mental and physical well-being and a drop in anxiety among those who sought attachment with God during times of hardship.[123] Kirkpatrick has emphasized that believers do not usually develop comparable attachment to the clergy, as attachment by definition is formed with a *person*, not with the *role* the person fulfills. If one happens to feel that the pope enhances his or her sense of security, this is "for reasons other than attachment processes." Kirkpatrick has similarly rejected the notion that groups such as a religious congregation can serve as objects of attachment.[124]

Such observations do not negate our basic view of Ottoman society as one in which nearly everyone believed in God, the omnipresent and the source of all natural phenomena. This was true of people from all religious groups. The level of trust in God and hence of attachment to him obviously varied among Ottoman subjects; there were those

whose deep attachment to God caused them to avoid any action in the face of a looming danger. For the latter, this attachment, not religious principles, was the main factor that informed their behavior. It was plain and pure belief in and linking with God that prompted some people to react the way they did, not a sophisticated analysis of ideas about epidemics discussed in scholarly works, to which they had little exposure.

Yet another potential problem with applying the attachment theory to disasters in the Ottoman period is related to its being based on twentieth-century case studies. The application of the theory in the interdisciplinary field of disaster studies is grounded in events from the first decade of the twentieth century at the earliest, and mostly in the Western world. Take, for example, the Disaster Research Center at the University of Delaware: A leading research facility of its kind and home to some of the pioneers in the field, it maintains a rich online database of studies conducted and published on natural and man-made disasters. This contains books, articles, unpublished dissertations, and a host of other papers and reports. Some of them are directly available via the Web site. Browsing the lists, one finds very few works on regions outside Europe or the Americas, and virtually none written by historians on the early part of the twentieth century, let alone earlier times.[125] This is hardly surprising if we recall that disaster research since its inception as a field of inquiry has been led by social scientists. For the multitude of twentieth-century case studies available in the center, psychological explanations for disaster behavior seem quite compelling. But can they explain people's actions in the seventeenth- or eighteenth-century Ottoman Empire? After all, human psychology is a function of social settings, cultures, ecologies, and environments as these affect the ways attachments are formed, and their quality.[126] One cannot help but wonder: Were there factors that affected reaction to fear, the development of panic, or the formation of attachments that were universal and that characterized humans (and other mammals) in the centuries prior to the period of this study?

Studies at the juncture of neuroscience and evolutionary biology may help answer this question. They indicate that attachments, in Bowlby's widely accepted definition, had existed among mammals, including humans, for millennia. Essentially all mammals share the basic neural systems supporting attachment-related behavior, which have evolved over millions of years.[127] The autonomic nervous system, which regulates many internal organs and involuntary functions, is also essential to emotional and facial expressions and social behavior. It is that system which regulates social engagement

and the formation of attachments, and it evolved, so scientists believe, as mammals emerged from reptiles.[128] The process by which individuals developed attachments, however, depended on social and environmental factors as well as neurological ones.[129] Certain emotions, such as sadness, fear, guilt, or compassion, which are dependent on attachments, can receive "moral overtones" and be qualified by "societal and cultural contexts."[130] The definition of what attachment is, therefore, varies by society, place, and time.

How is all that related to flight? Here we need to take a somewhat closer look at the neurological process. Studies have traced the ties of both flight and attachments to specific chemical processes in the human brain. Stress and fear typically cause rapid release of certain hormones in humans, which would prompt flight from a dangerous area, for protection. At the same time, attachment to one's children, relatives, or friends generate another kind of brain activity, including the release of another hormone (oxytocin) that, by contrast, enhances relaxation and reduces anxiety. This last development was found in women caring for a child whose life would be in jeopardy if they left: In such cases, the typical response was not flight but rather protection of the offspring, even if by so doing the mother exposed herself to further danger. Studies have established that oxytocin was responsible for many other forms of attachment in humans, not just maternal but also in couples and among friends.[131]

Different people, of course, experience stress and fear differently. It is hard to determine what generally caused stress and fear among Ottoman urbanites. But one may reasonably assume that a belief that death or a loss of relatives and friends was imminent was difficult for people living in a seventeenth- or eighteenth-century Ottoman city just as it is for us today. Patrick Russell's testimony of responses to quick and multiple deaths in Aleppo seems to confirm such sentiments: In June 1762, as deaths from plague in the city increased in intensity, the streets became deserted except for funeral processions, and "in the nights, the shrill voices of the women deploring their departed friends, were heard from all hands."[132] A qadi in Aleppo, who apparently understood the impact of such loud cries of despair on public morale, instructed women to refrain from screaming after funeral processions, so people would not be "alarmed by the noise of frequent burials."[133] Likewise, Giovanni Mariti reported similar cries of despair from houses in a plague-ridden city.[134] It thus appears quite plausible, even with the meager historical evidence at hand, that the rapid spread of disease and death in a city would trigger a similar emotional reaction to those found among communities in the twentieth century. At the same time, it is equally

likely that the frequency of disasters enhanced cohesion and a sense of "togetherness" among Ottoman urbanites. Thus with each calamity, attachments grew stronger and prompted people to stay and care for the sick, wounded, and homeless. As neuroscientific research has shown, even people who believed danger was imminent were not likely to opt for flight as their immediate and only reaction. Even when people did leave, they did so not only as detached individuals but also, as often, in groups that stuck together. This fits well with recent attachment explanations for disaster-induced behavior. Such an explanation for the relatively few cases of flight during disasters would seem sounder than the one relying on the Muslim belief in predestination.

A New Perspective on Ottoman Society

None of the theories offered as alternative to the one that ascribes disaster-time behavior to religious faith can, by itself, explain why people acted the way they did. Taken together, however, they do point to a set of possible motivations. Equally important, they show that one factor alone could not account for all reactions.

What do these findings concerning responses to natural disasters tell us about Ottoman society at large? In the previous chapters, we have seen that the state did not usually discriminate against non-Muslims when allocating postdisaster support. Where Muslims enjoyed more state benefaction than Christians or Jews, the reason for that was not outright discriminatory intentions but other interests, such as the desire to preserve privacy. The religious community played a vital part in the lives of most Ottoman urbanites, and houses of worship were the center of religious, educational, and social activities for most Muslims, Christians, and Jews. But the social world of many people comprised more circles than just the religious community. Times of severe crises, such as during and after natural disasters, reveal that people relied on their communities to an extent, but could also find solace and material assistance elsewhere. As I have shown in this chapter, people's responses to threats were not always in line with what the expectations of their community might have been; even when they were, the reasons were often unrelated to religious precepts.

This conclusion takes us back to the book's main argument, namely, that religious boundaries did not play such a central role in molding concepts and practices in Ottoman society. Religious identity surely mattered, and at times non-Muslims had fewer opportunities than Muslims. But looking at that society through the prism of religious

divides alone would distort the scene and compromise our ability to improve our understanding of what it meant to live in an Ottoman city.[135] This is because most injunctions and practices that discriminated against non-Muslims proceeded from the top down: Authorities in the capital and the provinces initiated and imposed them, sometimes at the request (or support) of communal leaders, but rarely at the behest of ordinary people. For the latter, separation between Muslims and *dhimmis* in daily affairs made little sense, as Elyse Semerdjian has shown in her recent study of bathhouses in Aleppo.[136]

Discriminating against non-Muslims helped the Ottomans communicate to their subjects their strength and presence through equating Islam with the state, as the "language" of Islam was understood by all. How the empire used the symbols of Islam as a tool to assert authority depended on political circumstances. Before the sixteenth century, when the Ottomans were a Muslim minority governing a majority of Christians, they used Islam as a means to introduce the people they conquered into their culture. In the sixteenth century, the empire introduced new laws and built grand monuments to showcase its Islamic identity, now that the conquest of the Arab world made the empire a truly Islamic one. Islam then was not merely a religion, but the dominant social order. Under Süleyman I, religion became politicized and formed an integral part of the sultan's imperial ideology, needed to sustain his claim for universal monarchy and eventually for the creation of a global religion that would unite all under one religious banner. The religiopolitical language, for example, that Süleyman was a God-ordained and just monarch, a messianic conqueror, the caliph, and the renewer of Sunni Islam, was used in the context of the empire's contest with its two rivals, the Hapsburgs and the Safavids.[137] It hardly changed ordinary people's daily realities.

Conditions began to change from the early seventeenth century, as the Janissaries and the *'ulema* effectively ran the empire, enthroning and dethroning sultans. This shift had many implications for all systems of the empire, from military organization to the economy. It also changed the social order, by emphasizing religious identity, on one hand, while providing more opportunities to non-Muslims, on the other. It was during this period that the term *re'aya*, or flock, hitherto applied to Muslims and non-Muslims alike (save for members of the ruling class), came to be used mostly for non-Muslims; and a special orthography for spelling Christian and Jewish names in state documents became more common. At the same time, the seventeenth and eighteenth centuries saw many more non-Muslims obtaining

positions in the state administration and even in the palace that offered promising economic and social horizons.[138] Some of the changes that demarcated differences between Muslims and *dhimmis* were enacted during the period of Kadızadeli dominance, and mattered little after the end of the century. Sultan Murad IV (r. 1623–40), although not a Kadızadeli, was much influenced by the movement and adopted some of its doctrines, such as the closing of coffee- and drinking houses. Two decades later, Mehmet IV and his mother, Turhan Sultan (d. 1683), launched a campaign to rid the empire of moral improprieties, marginalize non-Muslims, and convert as many people as possible to their interpretation of Islam. Mehmet IV's campaigns in Europe were accompanied by mass conversions of Christians and Jews. After the second failed siege of Vienna in 1683 (the first being Süleyman I's in 1529), Mehmet IV's public image deteriorated and the Kadızadelis lost their appeal. At the end, the Janissaries deposed Mehmet IV and enthroned his brother, Sultan Süleyman II (r. 1687–91), just as they had since the early seventeenth century.[139]

The early nineteenth century ushered in a new phase in Ottoman history. The Janissaries, whose power was declining from the late-eighteenth century, disappeared from the scene in 1826; the *'ulema* similarly lost much of their clout; and a century of ever-expanding reforms followed. These included the emergence of secular schooling and the rise of an educated class, the adoption of up-to-date scientific methods, and a multiplying press. These dynamic shifts, along with profound changes in the structure, functioning, and standing of the empire's non-Muslim communities, effected changes in the responses to natural disasters on all levels. In the next chapter, I look at developments that occurred in reactions to and recovery from major disasters in the empire from the early nineteenth century until its collapse in World War I.

1 Martin Luther, *Luther's Works* (Philadelphia: Fortress Press, 1968), 43:119–23.

2 Luther mocked those who refused to leave a plague-stricken area, believing God had brought the disease upon them and that fleeing would not save them: "By such reasoning, when a house is on fire, no one should run outside or rush to help because such a fire is also a punishment from God. Anyone who falls into deep water dare not save

himself by swimming but must surrender to the water as to a divine punishment. Very well, do so if you can but do not tempt God, and allow others to do as much as they are capable of doing. Likewise, if someone breaks a leg, is wounded or bitten, he should not seek medical aid but say, 'it is God's punishment. I shall bear it until it heals by itself.' Freezing weather and winter are also God's punishment and can cause death. Why run to get inside or near a fire? Be strong and stay outside until it becomes warm again. We should then need no apothecaries or drugs or physicians because all illnesses are punishment from God. Hunger and thirst are also great punishments and torture. Why do you eat and drink instead of letting yourself be punished until hunger and thirst stop of themselves?" (Luther, *Works*, 43:124–5).

3 Joël Coste, *Représentations et comportements en temps d'épidémie dans la littérature imprimée de peste (1490–1725): Contribution à l'histoire culturelle de la peste en France à l'époque moderne* (Paris: Honoré Champion, 2007), 383–99.

4 The Talmud recommended that Jews flee from the plague ("*dever ba-'ir kannes raglekha*") (BT, Bava kama, 60b). Rabbi Ḥayim Benveniste of Izmir (d. 1673) considered it to be good advice, but his discussion of people who did not work during an epidemic in his city implies that he understood this dictum to mean both flight and hiding at home (Ḥayim Benveniste, *Ba'e ḥayay: She'elot u-teshuvot* [Salonica: Mordekhai Naḥman ve-David Yisraeliyah, 1970], Ḥoshen mishpaṭ, 2:309–11). Other rabbis from the Ottoman period interpreted the Talmudic counsel similarly (Mosheh ben Yosef Ṭrani, *Sefer she'elot u-teshuvot ha-mabiṭ* [New York: Grossman, 198–], 3:211); Yoshiyahu Pinṭo, *Nivḥar mi-kesef: She'elot u-teshuvot 'al seder arba'ah ṭurim* [Aleppo: A. Sasson, 1869], 125). The Soncino English translation of the Talmud interpreted this verse similarly: "When there is an epidemic in the town keep your feet inside [the house]."

5 For a good historiographical overview of this issue, see Justin Stearns, "New directions in the study of religious responses to the Black Death," *History Compass* 7 (2009), 5:1363–75.

6 Dols, *Black Death*, 236–54.

7 Ibid., 22–5, 172–5, 292–3.

8 Dols, *Black Death*, 298–9.

9 Michael Dols, "The second plague pandemic and its recurrences in the Middle East: 1347–1894," *JESHO* 22 (1979), 2:162–89 (quotation from 180).

10 Panzac, *Peste*.

11 Ibid., 283–6. Panzac pointed to one important consequence of the plague, the boosting of local-communal authority among Christians and Muslims in the Ottoman Empire, given the absence of state and municipal authority.

12 Ibid., 300–1. Panzac further discussed the different responses of Muslims and non-Muslims to plague in another article, "Mourir à Alep au XVIIIe siècle," *Revue du monde musulman et de la Méditerranée* 62 (1991), 117–18.

13 Ibid., 301–11; Dols, *Black Death*, 284–9; for more on Christian concepts of contagion and sin, see Stearns, *Infectious Ideas*, 169–74; Delumeau, *Le péché*.

14 Lowry, "Pushing the stone," 93–132, and especially 128–30. There was a fundamental difference between Mehmet's response to the plague and that of Süleyman, which Lowry did not draw attention to: While Süleyman proscribed escaping from the plague, Mehmet II merely avoided entering plague-stricken cities. Unlike flight, choosing

not to enter a place under these circumstances was sanctioned by most Muslim jurists (Stearns, *Infectious Ideas*, 25–36).

15 Forster and Daniell, *Life and Letters*, 1:333–4. See also the discussion in Chapter 2, p. 79.

16 Dana Sajdi has shown that a new group of writers, who were not *'alims* and hence not committed to similar writing conventions, emerged in the Arab world in the 1700s (*Barber of Damascus*, 77, 111–16).

17 See the morbid descriptions of life in Cairo during the Black Death, which Dols quoted from the two (Dols, *Black Death*, 241–50).

18 Ibn Kannan, *Yawmiyat*, 54, 61–4, 197, 299; that the Christian Orthodox chronicler Burayk treated disasters similarly suggests that not only Muslims drew a connection between calamities and divine will (Burayk, *Ta'rikh*, 24, 41, 78–80).

19 See, for example, Dols's account of people of all faiths conducting a mass public prayer during the Black Death years in Cairo (Dols, *Black Death*, 251); Heyberger, *Chrétiens*, 527–8; and Burayk's descriptions as referenced in the previous note.

20 Marcus showed that differences between Muslims and non-Muslims, although clear to Ottoman city inhabitants, were often too subtle to be noticed by the outside observer (Marcus, *Eve of Modernity*, 41–8).

21 BL, Stowe Ms. 754, Dawes to Lyttleton, 1 March 1761, 3:84.

22 John Ray, *A Collection of Curious Travels and Voyages* (London: S. Smith and B. Walford, 1693), 2:95.

23 Jean du Mont, *A New Voyage to the Levant Containing an Account of the Most Remarkable Curiosities in Germany, France, Italy, Malta, and Turkey* (London: M. Gillyflower, 1696), 258–9.

24 See, for example: George Sandys, *A Relation of a Journey Begun An. Dom. 1610* (London: Ro. Allot, 1632), 38; Corneille Le Bruyn, *Voyage au Levant: C'est-à-dire, dans les principaux endroits de l'Asie Mineure, dans les isles de Chio, Rhodes, Chypre, &c*. (Paris: Jean-Baptiste-Claude Bauche, 1725), 1:447; Edward Brown, *The Travels and Adventures of Edward Brown, Esq*. (London: J. Applebee, 1739), 405–6; H. G. O. Dwight, *Memoir of Mrs. Elizabeth B. Dwight Including an Account of the Plague of 1837* (New York: M. W. Dodd, 1840), 7.

25 Mariti, *Travels*, 1:287–9.

26 D'Arvieux's memoirs were published posthumously in six volumes: d'Arvieux, *Mémoires*.

27 J. Theodore Bent, *Early Voyages and Travels in the Levant* (London: Hakluyt Society, 1893), 244.

28 Alexander Russell, *The Natural History of Aleppo* (London: A. Millar, 1756), 252.

29 Paul Rycaut, *The History of the Present State of the Ottoman Empire* (London: Charles Brome, 1686), 219–21.

30 Elias Habesci, *The Present State of the Ottoman Empire* (London: R.

Baldwin, 1784), 417–18.

31 White, “Rethinking Disease,” 549–67, quotation from 551.

32 Ibid., 553–61, quotation from 561.

33 Tawtal, *Watha’iq*, 1:11–14.

34 Evliya Çelebi, *Evliya Çelebi siyahatnâmesi* (Istanbul: Yapı Kredi Yayınları, 1994–2007), 9:59.

35 For example, ibid., 1:187, 7:50, 189, 234, 8:97, 137, 154, 162, 301, 9:95.

36 Russell, *Aleppo, 1756*, 252; Russell, *Plague*, 336, 359–60.

37 ACCM, J 914, report dated 1 September 1757.

38 Jennings, “Trabzon,” 27–36.

39 Rozen, *Jerusalem*, 2–6.

40 White, *Climate*, 178–9, 254–8.

41 Varlık, “Disease and empire,” 184–204.

42 Birsen Bulmuş, *Plague, Quarantines, and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2012), 23–4.

43 Nükhet Varlık, "From 'Bête Noire' to 'le Mal de Constantinople': plagues, medicine, and the early modern Ottoman state," *Journal of World History* 24 (2013), 4:741–70, quotes from 767, 770.

44 Mikhail, *Nature and Empire*, 75, 224, 283; White, *Climate*, 1, 6, 11, 84–91.

45 Jean Biraben, *Les hommes et la peste en France et dans les pays Européens et Méditerranéens* (Paris: Mouton, 1975), 2:161–7. See also Coste, *Représentations*, 516–18.

46 Russell, *Aleppo, 1756*, 258–9.

47 ACCM, J 914, letter dated 3 March 1758.

48 Russell, *Plague*, 64 and appendix: 3–7, 9–15, 18–20, 68–9, 83. For a sixteenth-century incident of Jews' nonchalantly visiting those lying in bed sick with the plague see Yosef Karo, *She'elot u-teshuvot avkat rokhel* (Jerusalem: Siaḥ Yisrael, 2002), q. 72.

49 Ḥayim Labaṭon, *Nokhaḥ ha-shulḥan: Teshuvot ve-ḥidushim be-arbaʿah ṭurim ve shulḥan ʿarukh* (Jerusalem: Mekhon ha-Ktav, 2000), 9. From this story, it is unclear whether Jews in Aleppo stopped attending regular prayers; but that they were feverishly looking for food would indicate that the community was unable to supply it at that stage.

50 Jesuits, *Lettres édifiantes et curieuses*, 1:77, 83, 100.

51 BOA, İE. SH., 138.

52 BOA, İE. SH., 107.

53 BOA, İE. SH., 104.

54 BOA, İE. ENB., 737. For other examples, see İE. SH., 134 (Erikli, 1652); İE. SH., 149 (Şehirköy, 1703); and C. AS., 37877 (Livadiye and İzdin, 1789).

55 BOA, C. SH., 1204.

56 BOA, İE. DH., 262.

57 BOA, İE. SH., 150.

58 BOA, C. DH., 3112.

59 BOA, TSMAD, 6955/0001/01. By the mid-seventeenth century, the term *re'aya* usually denoted non-Muslims.

60 BOA, Ali Emiri, Mustafa II, 350.

61 BOA, İE. SH., 182. The issue was reported to the Porte as some of those fleeing were *multezims*, in charge of *timar* tax farms, and the state had to replace them to ensure a continued flow of tax revenue.

62 See, for example: BOA, C.ML., 2005 (Rusçuk, Silistra, Harso, and Maçin, 1706); C.ML., 12456 (Istanbul, 1783); and C. ML., 3047 (Perkuki and Rusçuk, 1795).

63 In one such instance, in March 1704, Jews and Christians from Gümülcine (Komotini) and surrounding villages reported that most *dhimmis* in the area had died in a plague epidemic, and of those who had not, some had fled to neighboring provinces; BOA, İE. SH., 141.

64 BOA, C. ML., 3047. The file includes the original petition and a report about it written in Istanbul.

65 Ahmet Hasanbeyzade, *Hasan Bey-zâde târîhi* (Ankara: Türk Tarih Kurumu, 2004), 3:671.

66 ACCM, J 914, letter dated 1 September 1757.

67 Burayk, *Ta'rikh*, 80.

68 BL, Stowe Ms. 754, Dawes to Lyttleton, 30 September 1766, 3:193–4.

69 Ibn Kannan, *Yawmiyat*, 196–7; see Aḥmad b. Muḥammad al-Nasafi, *Kanz al-daqa'iq* (Zahan, Iran: Dar al-Faruq al-A'ẓam, 2003), 1:192–3 for the sections to which Ibn Kannan referred.

70 Such rumors were mentioned in European reports. See NA, SP 110/58, letter from 29 June 1772; ACCM, J914, letter from 15 April 1761; Russell, *Plague*, 28–30.

71 Al-Budayri, Ḥ*awadith*, 4.

72 Biraben, *Les hommes*, 1:65, 158, 235–6, 244, 2:83–4, 145–9; Coste, *Représentations*, 499–555.

73 Jordan, *Great Famine*, 134–5.

74 Michel Mollat, *The Poor in the Middle Ages: An Essay in Social History* (New Haven, CT: Yale University Press, 1986), 193–7.

75 Robert Jütte, *Poverty and Deviance in Early Modern Europe* (Cambridge: Cambridge University Press, 1994), 22–3.

76 Pullan, *Rich and Poor*, 249–51.

77 Stephen Porter, *The Great Fire of London* (Phoenix Mill, UK: Sutton, 2001), 46–73.

78 Jennifer Downs, "Famine policy and discourses on famine in Ming China, 1368–1644" (Ph.D. Dissertation, University of Minnesota, 1995), 45–6.

79 Li, *Fighting Famine*, 34–6.

80 Maren Ehlers, "Poor relief and the negotiation of local order in early modern Japan" (Ph.D. Dissertation, Princeton University, 2011), 274–5.

81 Agrawal, *Great Mughals*, 90–116.

82 Perry, "Disaster preparedness," 148–9.

83 Mark Pelling, *The Vulnerability of Cities: Natural Disasters and Social Resilience* (London: Earthscan, 2003), 60.

84 David L. Brunsma et al., *The Sociology of Katrina: Perspectives on a Modern Catastrophe* (Lanham, MD: Rowman & Littlefield, 2010), 84–92.

85 Panzac, *Peste*, 303–10.

86 Ibn Kannan, *Yawmiyat*, 172–3.

87 For examples, see al-Budayri, *Ḥawadith*, 54–5, 64–5, 155.

88 *ACCM*, J 914, letter dated 3 March.

89 Russell, *Plague*, 336, 359–60; Russell, *Aleppo, 1756*, 252; Russell, *Aleppo, 1794*, 2: 383–4.

90 Laniado, *Bet dino*, 458–9.

91 Russell, *Aleppo, 1756*, 258–9.

92 Russell, *Plague*, 299.

93 Joanne Nigg, "Communication and behavior: Organizational and individual response to warnings," in Dynes et al., eds., *Sociology of Disasters*, 103.

94 Ibid., 110–12.

95 Al-Budayri, *Ḥawadith*, 4.

96 Russell, *Plague*, 28–30.

97 The Rare Books and Special Collections department of the Princeton University Library has a copy of al-Suyuṭi's work produced in 1591 (Jalal al-Din al-Suyuṭi, *Kashf al-ṣalṣala 'an waṣf al-zalzala*, Ms. Garrett 5625Y). Sections of this treatise were copied into a compilation of works on earthquakes from c. 1735, also found in Princeton (Ḥamid b. 'Ali 'Imadi, *Risalat al-ḥawqala fi al-zalzala*, Ms. Garrett 509Y). The Süleymaniye library in Istanbul has a few copies of al-Suyuṭi's work from various periods.

98 Public reading of books and pamphlets was a common way of transmitting knowledge in sixteenth-century France, whose population was still overwhelmingly illiterate; Natalie Zemon Davis, "Printing and the people," in her *Society and Culture in Early Modern France*, 189–226. For similar practices in the Middle East, see Ami Ayalon, *Reading Palestine: Printing and Literacy, 1900–1948* (Austin: University of Texas Press, 2004), 132–53.

99 Selma Akyazıcı Özkoçak, "Kamusal alanın üretim sürecinde erken modern İstanbul kahvehaneleri," in Ahmet Yaşar, ed., *Osmanlı kahavehaneleri: Mekan, sosyalleşme, iktidar* (Istanbul: Kitap Yayınevi, 2009), 17–35, and especially 25–6.

100 Russell, *Plague*, 28–30, 51, 55, 65–6, 359.

101 Neil Smelser, *Theory of Collective Behavior* (New York: Free Press of Glencoe, 1963), 131.

102 Ibid., 135–43; Raphael, *When Disaster Strikes*, 41–6.

103 Mawson, *Mass Panic*, 236–7.

104 John Bowlby, *Attachment and Loss* (New York: Basic Books, 1969); for more recent interpretations of attachment theory, see Joan Woodward, "Introduction to attachment theory," in Marci Green and Marc Scholes, eds., *Attachment and Human Survival* (London: Karnac, 2004), 7–20; Mario Mikulincer and Phillip Shaver, *Attachment in Adulthood: Structure, Dynamics, and Change* (New York: Guilford Press, 2007), 3–28.

105 Mawson, *Mass Panic*, 237–8; Raphael, *When Disaster Strikes*, 47 ff; Perry, "Disaster preparedness," 147.

106 Russell, *Plague*, 64, appendix 3–7, 13–15, 68–9.

107 Ibid., 50–1.

108 Mawson, *Mass Panic*, 238.

109 Pinṭo, *Nivḥar*, 125. For an example from eighteenth-century Baghdad, see Ḥuṣin, *Oraḥ ḥayyim, yoreh de'ah*, 9.

110 Burayk, *Ta'rikh*, 78–80.

111 BOA, C. ML., 31320.

112 BOA, HAT, 753, 753B; C. DH., 2619. For a similar response, particularly among the Jews of Aleppo, see 'Antebi, *Yoshev ohalim*, author's introduction.

113 Mawson, *Mass Panic*, 239–40.

114 Ibid., 240–2.

115 F. E. Viteri and O. Pineda, "Effects on body composition and body function: Psychological effects," Blix et al., eds., *Famine*, 38.

116 Jelliffe and Jelliffee, "The effects of starvation," 57–9.

117 Jordan, *Great Famine*, 162–6.

118 Li, *Fighting Famine*, 35–6.

119 Ciarán Murchadha, *The Great Famine: Ireland's Agony, 1845–1852* (London: Continuum International, 2011), 81–3.

120 Andrew Greeley, *The Religious Imagination* (Los Angeles: Sadlier, 1981), 18.

121 Gordon Kaufman, *The Theological Imagination: Constructing the Concept of God* (Philadelphia: Westminster Press, 1981), 67.

122 Lee Kirkpatrick, *Attachment, Evolution, and the Psychology of Religion* (New York: Guilford Press, 2005), 55.

123 Ibid., 61–74.

124 Ibid., 93–6; quotation from 94–5.

125 http://www.udel.edu/DRC/, accessed 3 August 2014.

126 Eliot Smith and Diane Mackie, *Social Psychology* (Philadelphia: Taylor & Francis, 2000), 3–13.

127 Jean Decety, "The neuroevolution of empathy," *Annals of the New York Academy of Sciences* 1231 (2011), 36–7.

128 C. Sue Carter et al., "Neural and evolutionary perspectives on empathy," in Jean Decety and William Ickes, eds., *The Social Neuroscience of Empathy* (Boston: MIT Press, 2009), 170.

129 Ibid., 171.

130 Jorge Moll et al., "The self as a moral agent: Linking the neural bases of social agency and moral sensitivity," *Social Neuroscience* 2 (2007), 3–4:336–52, quotation from 337.

131 Shelley Taylor et al., "Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight," in John Cacioppo et al., eds., *Foundations in Social Neuroscience* (Cambridge, MA: MIT Press, 2002), 663–93. Studies have also revealed that women tended to seek social attachment in times of stress and fear more than men.

132 Russell, *Plague*, 52.

133 Ibid, 49.

134 Mariti, *Travels*, 1:284.

135 Boyar and Fleet have reached the same conclusion (Boyar and Fleet, *Istanbul*, 136).

136 Semerdjian, "Naked anxiety," 651–76 and especially 664–9.

137 Şahin, *Empire and Power*, 57, 61–2, 67–8, 71–2, 91–2.

138 Tezcan, *Second Empire*, especially 235–7. For new opportunities for Christians and Jews related to the arrival of Europeans in the empire from the seventeenth century onward, see Masters, *Christians and Jews*, 68–129.

139 Baer, *Honored by the Glory*, 68–72, 81–104, 179–230.

5 Natural Disasters at the End of Empire

On 10 July 1894, an earthquake shook Istanbul and its surroundings, damaging large parts of the city. Houses and shops lay in ruin, a French journalist reported five days later, and streets were deserted. Sultan Abdülhamid II had "demonstrated great bravery. His first reaction was to send people to the city's different areas to offer help; they were instructed to collect information and to dispense aid where needed. The Sultan [also] appointed a technical committee, whose task was to visit and demolish houses that were about to collapse," apparently in preparation for rebuilding them.[1] This prompt government disaster relief action was part of a greater effort to contain another calamity, a cholera epidemic, which had started in the summer of 1893 and would continue until 1895. The Ottoman reaction to both misfortunes revealed the multiple changes the empire had undergone over the preceding century, in legislation that created modern government institutions, in education, and, not least, in substituting modern scientific approaches to diseases for traditional ones. Ottoman intellectuals, like their government, now espoused scientific explanations for earthquakes that occurred in Europe at the time and rejected religious ones. While the majority of the people continued to attribute natural disasters to God (and still did so in Turkey of the late 1990s), state responses to calamities during the first half of the 1890s were markedly different from those of earlier periods.[2]

Despite noticeable changes in the nineteenth century, I argue in this chapter that the empire's inability to curtail or respond effectively to disasters was a crucial factor in the Ottoman collapse in the early twentieth century. Previous accounts of the fall of the Ottomans focused on military, diplomatic, political, and economic crises.[3] All are valid explanations. But, I maintain, the Ottoman approach to natural disasters played a main part behind the scenes in aggravating an already inferior military performance, severing diplomatic relations, and worsening the empire's financial woes. Through tracing political and social developments in the empire, and the changing

outlook on disaster containment, I also show how attitudes toward non-Muslims changed throughout the nineteenth century, and how communities were affected.

I start with a general overview of the reforms that began in the late-eighteenth century and reached full swing during the Tanzimat (1839–76). Specifically, I look at the process that led the empire to drop its long-standing objection to quarantine and move to adopt it in the 1830s. The sanitary policy the Ottomans implemented empirewide at that stage, I argue, was already outdated and proven ineffective. By the 1850s, most European nations trading in the Mediterranean had abandoned quarantine and focused instead on improving sanitation in major urban areas. Ignoring European urgings for several decades, the Ottomans shifted from a contagionist to an infectionist perception of epidemics only in the 1890s, and even then retained elements of their older policies. As I will show, the application of new medical practices began too late for the empire.

Ottoman responses to earthquakes and fires evolved from their eighteenth-century model, discussed in Chapter 2, and reflected a growing concern for the people's welfare as well as a greater desire for control. From the mid-nineteenth century onward, victims would receive immediate government help in provisional lodging and food, and later state funding and aid in rebuilding their homes. Just as after the Great Fire of London and the Lisbon earthquake, Ottoman authorities came to realize at this period the great potential for city replanning – and the tightening of control – offered by the destruction of towns and were no longer reluctant to apply it. Redesigning a city broke off a centuries-long tradition that emphasized the power of precedent in restoring an urban landscape. In the rapidly changing world of the nineteenth century, the Ottomans could afford to do that.

An Age of Reform

If the Egyptian historian al-Jabarti (d. 1825) could use a time machine to travel a few centuries back, he would have landed in a familiar terrain, quite like his own. Had he, however, chosen to travel forward in time, even a few decades, "he would have been baffled by new sights and strange sounds."[4] This is how one scholar depicted the transformation the Middle East had undergone in the nineteenth century. Historians have debated the causes for these changes in the region and have argued about their effect. The view that Christian Europe was solely responsible for introducing modernity to the region has long been discarded; but it is generally agreed that the Ottoman Empire and its Arab provinces experienced profound shifts from the

end of the eighteenth century on, and that many of them were inspired by changes that had taken place earlier – even centuries earlier – in Europe. New concepts, inventions, and methods introduced during the nineteenth century completely changed the ways the Ottoman state and its subjects confronted natural disasters.

The story of the Ottoman reforms has been repeatedly told.[5] Here I shall only briefly lay out its main contours, as a necessary historical context, then focus mostly on developments pertinent to the handling of natural disasters. The reign of Sultan Selim III ushered in a new era in Ottoman history. Baki Tezcan has shown that this was not the first round of major changes in the empire: It was preceded by the transition from the First to the Second Empire in the early seventeenth century.[6] Selim's reforms, known as *Nizam-i Cedid* (New Order), began after the Russo-Ottoman Treaty of Jassy (1792) and focused mostly on the military. The many opponents to his reforms, especially among the Janissaries, eventually effected his downfall in 1807 and his assassination a year later. Mahmud II (r. 1808–39) did not immediately seek to continue where his cousin Selim had left off, but after elimination of the Janissaries in 1826 the path was clear for the creation of a modern army. Despite setbacks in the 1820s and 1830s, Mahmud introduced new military practices and rebuilt his bureaucracy: He formed government departments headed by ministers, established legislative councils to advise the sultan, and granted the courts judicial independence. These were still initial steps in the 1830s, but they portended an ambitious makeover. In many ways, Mahmud followed the path of Muḥammad ʻAli, the Ottoman governor of Egypt.[7]

Exploring nineteenth-century Ottoman reforms in recent years, historians have tended to underscore internal changes and to downplay those introduced by foreign agents, such as Napoleon Bonaparte.[8] For our story, however, the arrival of Bonaparte in Egypt in 1798 was of central import. The French, who subsequently ruled Egypt, introduced novel concepts that, though of limited immediate influence, changed the ways Ottoman state and society combated natural disasters in the long run. Examining the French imposition of quarantine in Egypt in 1799, Alan Mikhail has shown that the move created social divisions and introduced new practices that were alien to the local society. Muḥammad ʻAli later adopted the French methods for combating plagues, by making his subjects comply with sanitary regulations, thus accelerating the social and environmental shifts Egypt had been undergoing since the late-eighteenth century.[9] Other studies describe similar patterns for more North African regions, such as Libya, Tunis, and Morocco.[10]

The Tanzimat entailed more changes that would affect, directly but mostly indirectly, the state's handling of natural disasters. Only a few of these can be noted here. In 1840, the Ottoman government began to overhaul the financial system. This included issuing paper money for the first time, revising financial (as well as other) laws according to French and Belgian models, and creating an Ottoman Central Bank in 1856. Communications and transportation were also improved during this period. The first Ottoman post office opened in Istanbul in 1840, and in 1851 the first steam-powered commuter ferries started operating from there. Telegraph lines and the construction of railways soon followed, in 1855 and 1866, respectively.[11] Gradually, the empire came to rely on loans from European powers and channeled through its new banking system to finance the different projects. Overall, the Tanzimat increased the Ottoman technological and financial dependence on Europe, as well as the empire's financial fragility. As we shall see, this trend influenced health and sanitation policies, and city planning.

The Ottoman government also enacted laws that facilitated better services to its subjects, on one hand, and tightened state control, on the other. A census of the male population was first conducted in 1844. From 1847 onward it was expanded to include an annual publication of data on the empire's population, known as the *salname* (yearbook).[12] In 1855, a municipality (*belediye*) was first established for the city of Istanbul, and then gradually for other cities of the empire. This added another layer of local government and placed an appointed official in charge of each town, at the head of an elected city council usually composed of local notables. A city commissioner (*şehremini*) , head of the city council (*şehremanet*), was made responsible for supervising the markets, controlling prices, and managing the registry of properties, functions hitherto handled by the *muḥtasib* and *qadi*. The power of the religious establishment was thus curtailed, and the state gained better control of local affairs and better ability to interfere in situations that had been off limit for it only a few decades earlier.[13] City councils, in collaboration with new Ottoman ministries, such as the ministry of health (founded in 1850), could now regulate public and private life in ways previously unimaginable. New rules governing the erection of buildings, street cleaning, garbage disposal, and noise- and filth-producing shops and factories were also introduced.[14]

Another important development was the formation of state-sponsored social and charitable services. As we have seen in Chapter 3, prior to the nineteenth century charity in the Ottoman Empire was

not regarded as the responsibility of the state; nor did the government usually intervene in regulating poverty. Charity was collected and dispensed either through the extensive network of *waqf*s or via the non-Muslim communities, for their own members. Only beggars, the most visible mark of poverty, caused the state to intervene occasionally in poor relief before the nineteenth century. Beggars probably bothered the authorities in the capital quite a bit, though perhaps not for the same reasons they troubled European governments, which saw them primarily as transmitters of diseases. From the mid-sixteenth century on, official regulations had restricted begging in the streets of Istanbul; able-bodied people who had chosen to beg had been liable to corporal punishment. Such rules were not meant to keep beggars off the streets entirely, but to regulate their activities through a system of licenses, guilds, and official appointments of head beggars. [15]

Thanks to a study by Mine Ener, we know that at least in one other part of the empire, Egypt, the handling of poverty in the early nineteenth century focused on beggars. In Egypt before Muḥammad ʻAli, the Ottoman authorities had formerly distinguished between deserving and undeserving poor, or beggars, mainly by their place of dwelling. Such a distinction had also served the purpose of restricting movement from rural to urban areas, thus maintaining security and order. During the first half of the nineteenth century, the criteria for distinguishing between deserving poor and able-bodied ones became tougher, and those who could not work were sent to shelters. Such a policy marked a new trend in the state's view of poverty and charity. This increased government role in administering charity was only one out of many changes Muḥammad ʻAli and his successors introduced. Others included state monopolization of agricultural production, the cultivation of new crops, and the employment of farmers with their women and children in public works; mandatory conscription for male peasants; and new taxes to fund the growing military. Through these new measures and the building of a modern police to enforce them, the state stiffened its grip on the people and intervened in their lives as never before. Regulating beggary, then, was one facet of this overall policy. By the 1850s and 1860s, laws against beggary became stricter, and the police expanded its activities and arrested and expelled hundreds of people annually.[16]

The poor-relief policy of Muḥammad ʻAli and his successors was not limited to regulating begging. Like many rulers before him, Muḥammad ʻAli showed benevolence to his subjects by founding charitable institutions, such as hospitals and soup kitchens, and providing services to the poor, such as free medical treatment and

transportation. But the Egyptian government's acts were not just about beneficence: In the nineteenth century it sought to curb public dependency on charity by adopting policies that reduced the likelihood of poverty and disease. These included the introduction of vaccines and quarantine, and the building of modern hospitals, for which Muḥammad 'Ali and his descendants relied on French advisers.[17]

Likewise, Ottoman sultans who sought to reform charity were driven mostly by intent to tighten their control over their subjects and increase revenues to the treasury. Charity could be a tool to amplify a ruler's power and prestige; but by the time of Selim III, local notables or beneficiary families were running most *waqf*s, and the revenues they generated no longer profited the treasury as they had in earlier periods. After the destruction of the Janissaries in 1826, the Ministry of Imperial Waqfs (*Evkaf-ı Hümayun Nezareti*), founded under Abdülhamid I (r. 1774–89), managed to shift many imperial *waqf*s back to the sultan's purview. During Mahmud II's reign and the Tanzimat, the state demanded that all *waqf* revenue pass through the ministry before being distributed to the intended recipients, a regulation that markedly reduced the income reaching the latter. The state also closed down some dervish orders and imposed close supervision on the finances of others. By assuming control over charitable activities hitherto handled privately, the state curtailed the socioeconomic stance of religious scholars and their students. The long-term effect of this shift was that many foundations, now required to run on a shrunk budget, fell into dysfunction or disrepair, and their officials were reduced to poverty.[18] The channeling of charitable funds through the ministry thus exacerbated, not alleviated, poverty while enhancing state centralization.

The control the state imposed on *waqf*, then, was motivated by its desire to increase revenues and to deepen its involvement in its subjects' lives. The changes introduced throughout the nineteenth century featured modified definitions of need and entitlement, and, more generally, of the official attitude to the poor and poverty. The status of religious scholars, functionaries, and institutions was being circumscribed not merely by changes to the funding of *waqf*s but also by the creation of new ministries, for education, justice, health, and public works. Assuming functions previously performed by *waqf*s, these state agencies operated along secular legal lines and employed men from outside the religious establishment. The formation of government ministries, the decline of the status of *waqf*s, and the closure of many *tekke*s required that the government take more responsibility for poor relief. By midcentury, the state had begun

paying an allowance to the poor who could not support themselves and maintained lists of eligible recipients. The conditions for receiving aid became more stringent with time.[19]

The Tanzimat was also a time of cultural and intellectual efflorescence, underlain by the expansion of education. Schooling opportunities, rather limited prior to the nineteenth century, expanded considerably during the Tanzimat through state initiatives and private, mostly foreign ones. An Ottoman ministry of education was created in 1847. The first Ottoman university, the *darülfünun*, was envisioned and built in the 1840s and opened its gates in 1863. It followed another institution of higher learning, the Academy of Sciences (*encümen-i danış*), which operated between 1851 and 1862. In 1869, the government enacted the Education Law, requiring all children seven to eleven years of age to attend schools – a law whose application was perforce delayed by the absence of state schools in many locales. American Protestant missionaries who began to arrive in the region in the 1820s also opened schools and colleges that attracted local residents, Christians and others. Among them were Robert College in Istanbul (1863; now Boğaziçi University, and a high school still bearing that name) and the Syrian Protestant College in Beirut (1866; now the American University of Beirut). The main foreign competitors of the Americans were French Jesuit missionaries, who also ran schools and colleges, prominently St. Joseph University in Beirut (1875). By the 1880s, there were American, English, French, and Austrian schools all over the eastern Mediterranean. Within Jewish communities, schools operated by the Alliance Israélite Universelle from the 1860s offered another alternative to traditional instruction, incorporating Jewish education, secular subjects, and even vocational apprenticeship programs. The proliferation of educational institutions created opportunities for Ottoman subjects to be exposed to new knowledge and ideas hitherto unavailable via communal schooling.[20] Only a small minority of Ottoman citizens had attended Western schools by World War I, but their number was large enough to make a difference.

The Tanzimat period also saw rapid intellectual developments in the empire. Most significant for our purpose was the exposure to modern ideas, through the ever-closer encounter with foreigners and through a set of new tools borne by the rapid spread of printing, notably newspapers, journals, and novels.[21] Just as missionary education and the options to study in Europe introduced Turkish and Arab students to secular knowledge, the written media of the nineteenth century carried a new world of concepts and practices to a growing segment of Ottoman urban society, in Istanbul and the major provincial cities,

who were keen to adopt them.[22] The written word, with its power to change perceptions about the world, nature, and God, could potentially affect people's responses to disasters as well. I say "potentially" for two reasons: first, because, as I have argued earlier, people's reactions to life-threatening situations had little to do with religious or other beliefs; hence changes in such beliefs were equally irrelevant to their handling of disasters; and second, because most of the intellectual changes occurred in a few urban centers and had little or much-delayed effect elsewhere. Nonetheless, at least among the intelligentsia new perceptions were evolving about why calamities occurred and what could be done to prevent them. As I will show later, it was these modified concepts among the educated and the scientific community that eventually led the empire to adopt Western modes of responding to disasters.[23]

The ascent to the throne of Abdülhamid II put an end to the Tanzimat and the empire's first constitutional experiment (1876–8). To historians, Abdülhamid is a controversial figure: a reactionary despot who suspended the constitution and parliament, censored newspapers, and emphasized the Islamic character of his empire; but at the same time also a great reformer.[24] Keen on the advancement of his empire, and driven by political calculations and a personal penchant for technology, Abdülhamid introduced innovations that placed his empire at the technological forefront of the day. One was the expansion of railroads, which linked the empire more efficiently with Europe and boosted transportation between the capital and the Arab provinces. Another was the rapid adoption of the telegraph, which the empire began using during the Crimean War (1853–6). By the 1860s there were already more than seventy telegraph stations in the empire, and during Abdülhamid's reign the number rose exponentially and students in state schools were regularly trained in telegraphy.[25] Such tools enhanced the sultan's control over his empire, not least over remote areas that had been only loosely subject to Ottoman rule before.

The dynamic social, educational, and technological developments of the nineteenth century also affected the organization and functioning of non-Muslim communities. It would be useful to look briefly at these changes. Western-inspired education posed a challenge to Christian and Jewish communities, by exposing their members to knowledge and ideologies from which communal schooling had hitherto shielded them. From the 1860s on, tens of thousands of students of all faiths were educated in missionary schools.[26] In the Jewish community, the alliance network grew from 3 institutions that served 680 students in 1865, to 183 schools with 43,700 boys and girls in 1913.[27] Missionary

schools, whose pupils were primarily Christian, emphasized instruction in and of Arabic. This was a main factor, some historians believe, in the development of an "Arab identity" among Christians, one that sought common grounds with Muslims and from which Arab nationalism would later emerge. Such Arab identity would eventually compete with the Christian-communal one. Jewish Alliance schools, by contrast, did not teach Arabic and accentuated a European-French orientation instead; hence an Arab identity appealed less to Jews, including those who spoke Arabic.[28] In one important respect, however, there was not much difference between attending a missionary school and an Alliance school: In both systems students were exposed to a whole new realm of ideas that would prepare the ground for new identities in later decades.

The expansion of education and hence of literacy, reforms that formally equalized Muslims and *dhimmi*s, and the state's intervention in appointing minority spiritual leaders, all created new opportunities for Christians and Jews beyond the religious community. They also allowed for the emergence of rival factions within it. The availability of diverse educational options resulted in a weakened communal authority, loosened morals, and disrespect for tradition. Already in 1858, a Maronite bishop in Aleppo found it necessary to issue a decree urging his flock to attend church every Sunday, learn how to read and write, follow church rules, dress modestly, refrain from loitering in the streets and gardens at night, abstain from smoking in public, and avoid all forms of gambling.[29] In the Jewish world, such developments were still more pronounced, and rabbis were openly complaining about the decline in Jewish morals and in people's commitment to their congregation.[30] In terms of communal structure, too, changes for the Jews were more dramatic than for Christians. The Armenian, Greek Orthodox, and Catholic churches had had hierarchical leadership structures sanctioned by the state prior to the nineteenth century reforms. The situation was different for the Jews, who, until the nineteenth century, did not have a formally recognized hierarchical communal structure. The appointment of a chief rabbi for all the Jews in the empire, in 1835, was a novelty that at first made Jewish leaders uncomfortable. It was only in the 1860s that the Jews fully embraced the new structure and created representative institutions with bylaws.[31] Such developments highlighted the ongoing process of the weakening of rabbinical power in the Ottoman world, a process that had begun in the late-eighteenth century. Consequently, families in influential leadership positions had declined in prominence. Local chief rabbis, appointed in the nineteenth century by the chief rabbi of Istanbul, did not normally bequeath their post to their children and served for several years at most. Internal struggles

and intrigues in many communities throughout the empire hindered continuity in service. This was quite different from the situation in earlier centuries. In Aleppo and Damascus, for instance, the Laniado and Galante families, respectively, had enjoyed hegemony since at least the early seventeenth century, with some members of their families serving in the rabbinical courts for decades at a time. In the nineteenth century, however, none of the chief rabbis in the two cities was from these families.[32]

Did the decline in leadership and the loosening of communal structures affect the ways these religious groups confronted disasters? A systematic study of communal responses to disasters during the last Ottoman century is yet to be conducted. As we have seen in Chapter 3, prior to the nineteenth century a community's ability to deal with natural blows depended largely on its charitable services, which provided its members with vital assistance. This system kept the people close together and retained communal coherence – except in cases of very severe or prolonged calamities, when the community was no longer able to address demand and temporarily lost its relevance. As for the nineteenth century and early twentieth, if the persistence of community charitable foundations is any indication, we may perhaps cautiously assume that there was little, if any, change from past norms. We know that in some communities, charity institutions of a traditional kind continued to function and even expand. For example, a group of Greek Catholic Christians in Aleppo in 1787 founded the "sacrificial brotherhood" (*aḥwiyat al-qurban*); limited until 1825 to sixty-eight affiliates, predominantly Greek Catholic, its membership began to increase thereafter and by midcentury had become many times bigger, now comprising Christians of various denominations.[33] In Alexandria, the Jewish community had stopped collecting and dispensing food to the poor sometime before the nineteenth century, but resumed the practice in 1869, and by 1882 had ordinary weekly distributions of bread to the needy.[34] On the other hand, in certain other places, such as Damascus and Aleppo, Jewish charity institutions that were maintained by congregations and private societies declined in the second half of the nineteenth century, following the decrease in rabbinical authority.[35]

On the whole, however, changes in communal responses to disasters until the collapse of the empire seem to have been distinctly slower and more limited than those prompted by the government. This is hardly surprising. Social change usually takes longer, often much longer, than the formal application of regulations issued by the state. A government may alter a law or institute a new policy, and rely on its military and officials to enforce them when needed. The change

can be smooth so long as there is no significant resistance to it by the subjects. During the Ottoman Tanzimat and most of Abdülhamid II's tenure, many of the reforms were implemented without opposition. Not all of them, however, were readily accepted by all subjects; when they were not, the power of old social conventions could prove a mighty hurdle to state policies. Such, for example, was the case with the 1856 move to equalize the status of Muslim and non-Muslim subjects and abolish the *jizya*: Ottoman society was not prepared at that time to substitute the rights and burdens of full equality for its traditional concepts and beliefs. Indeed, it did not fully accept the principles of religious nondiscrimination well into the twentieth century.[36] Similarly, despite many changes in the Ottoman handling of natural disasters, which I shall discuss later, the majority of the people continued to adhere to their timeworn notions. In both of these instances – equality for non-Muslims and the *jizya* – the state was patently more enterprising than society. Until further study is undertaken, then, we may assume that the state reactions to natural catastrophes during the nineteenth and early twentieth centuries closely mirrored the changes of the time; for communal reactions, such an assumption seems valid to a far lesser extent.

Quarantine and Health Policy

In 1831, the first-ever cholera epidemic in Ottoman history broke out in Izmir. In the same year, binding quarantine regulations went into effect at the imperial level. The measure appeared after several decades in which local authorities were imposing quarantine to protect their provinces from plague. Unlike the systematic procedures the French implemented in Egypt in the early nineteenth century, quarantine in the empire during the period up to 1831 was applied intermittently and only at seaports. It was economic rather than health considerations that accounted for this irregularity. On the instructions of local officials, ships arriving from plague-verified or plague-suspected areas would be examined and often prevented from entering the port for as long as forty days. For example, during the plague epidemic of 1760 in Acre, the governor imposed quarantine on all ships docking at the city's ports; an Italian visitor reported the measure with some amazement, for he had been told that Ottoman authorities did not usually follow quarantine procedures.[37] In the second half of the eighteenth century, shelter houses (*tahaffuzhane*) operated around Istanbul, Edirne, and the Black Sea area. Their function is not entirely clear, but it appears that *tahaffuzhane*s, usually single structures, were used to isolate people arriving from plague-suspected areas and offered them some medical attention.[38] In some

places, where Europeans dominated trade at the ports, quarantine was more effectively enforced. This happened in Tunisia, where from as early as the seventeenth century ships were denied entry into the harbor if they failed to present a clear bill of health (a document issued by the consul of the ship's country of origin and testifying to the plague situation there).[39] Later Tunisian governors experimented with quarantine as well, usually with French prodding.[40]

During the early decades of the nineteenth century –the "era of the pashas"[41] – the initiative in disease prevention was still entirely in the hands of local Ottoman governors. In certain places this was an extension of policies that had been in place in the eighteenth century; in others, sanitary regulations were a novelty. In the Balkans, quarantine stations were set up along the borders with the Hapsburg Empire, on the Danube River, and within cities, and houses suspected to have residents who had plague were burned down. In Mount Lebanon during a plague epidemic that swept through Syria and Lebanon in 1812–14, the governor, Bashir Shihab (r. 1788–1840), ordered villages, houses, and individuals thought to have the plague to be isolated. And in Egypt, Muḥammad 'Ali readily adopted and expanded the antiplague measures the French had introduced during their short reign from 1798 to 1801, including quarantine, isolation of houses of plague victims, and the forced separation of the sick from the healthy.[42] In the capital, too, random but harsh antiplague actions were taken, including the sealing off of entire quarters where the plague seemed to have struck, and burning or tearing down of houses.[43]

What prompted the rise in antiplague measures in the early nineteenth century? Europeans clearly played a major part in the decision of Ottoman and Muslim governors to adopt quarantine. European consuls in Tangier persuaded the Moroccan sultan to impose quarantine in seaports and along the border with Algeria when the plague was raging there in 1792–3, and the practice was maintained there at different levels during the first half of the nineteenth century as well.[44] French diplomats and merchants encouraged local governors to establish quarantines in other North African countries. By the early 1830s, the French had taken control of quarantines in Algeria and Tunisia and founded sanitary councils that set health policies for these countries.[45] In Egypt, as we have seen, Muḥammad 'Ali followed the French quarantine model, which he also introduced in Palestine and Syria during his son Ibrahim's rule there, in the 1830s. Until then, governors in the Levant and Anatolia had been accustomed to applying isolation of specific houses or neighborhoods

rather than large-scale quarantine.[46] In the Balkans, quarantine and other measures mirrored those implemented on the other side of the border, in Austria. In southeastern Europe, as elsewhere in the empire, the project was Ottoman, the ideas European.[47]

The European-inspired use of quarantine by provincial governors stood in contrast to the lack of an overall imperial plan to combat epidemics and improve sanitation. Before the 1830s, European powers were repeatedly urging the Ottoman government to apply quarantine in ports of the eastern Mediterranean. Their aim was to check the spread of plague, which was endemic to the Levant but on the decline in Western Europe from the seventeenth century onward. A major outbreak in Marseille in 1720 demonstrated that the need to maintain quarantine procedures for every ship entering from the Levant was still very real.[48] The European pleas, however, were met with little or no Ottoman response. Only in Istanbul and its environs does one find a somewhat improved approach to sanitation, with regular collection and disposal of garbage, rules for keeping animals within residential areas, and street cleaning.[49] Ottoman responses to plagues and famines in the early nineteenth century indicate that little had changed: The empire continued to react to calamities after they had occurred, but took few steps to prevent them. As in the past, the response was basically reactive in nature and included reducing or recalculating taxes, supplying provisions, and issuing orders to restore security. Such was the case after plague and famine had hit the Diyarbakır area in 1799–1800;[50] during a famine in Khania, Crete, in 1812;[51] and in other places.[52]

The early 1830s witnessed a shift in Ottoman policy: For the first time the government began to consider applying empirewide sanitary regulations that would help prevent epidemics, rather than merely reacting to them. There were several reasons for this shift. The arrival of cholera in the empire was one. Plague had been a familiar disease, which people expected to erupt occasionally. With the exception of a few major outbreaks, it was a relatively minor nuisance, one the sultans could leave the provinces to handle and in which they would intervene only when called upon to do so by the people of a plague-affected area. Cholera, by contrast, was a new and unknown disease to Ottomans and Europeans alike. Originating in the Indian subcontinent, it made its way west in the first decades of the nineteenth century. It reached Baghdad in 1821, Mosul and Diyarbakır in 1822, and several Mediterranean coastal towns in 1823. In 1831–2 there were cholera outbreaks all over the Arab provinces of the empire – in Basra, Damascus, Palestine, and Mecca. In Egypt cholera killed about 150,000 of an estimated 3.5 million people within two months. But it

was the eruption of cholera in Izmir in September 1831 that alarmed the Ottomans. As the disease approached the capital, quarantine stations were set up, and Mahmud II began issuing orders for the establishment of quarantine houses in the various provinces of the empire. The 1830s also saw the last wave of plague eruptions in the European parts of the empire. From 1831 until 1838, governors in Sarajevo, Niş, Sofia, Skopje, Salonica, Belgrade, and Priština, to name but a few, received imperial orders that backed their already existing plans to impose quarantine.[53]

Politically too, the time for altering the empire's health policy was right. During the early part of his reign, Mahmud II was very cautious about initiating changes. But with the destruction of the Janissaries in 1826, the main force obstructing reform was gone. From then until his death in 1839, the sultan was on a quest to modernize the empire and buttress his rule. A new sanitary policy contributed to both causes: It placed the Ottomans on a par with Europe in efforts to prevent epidemics (though as we shall see, for a short while); and it allowed the central government better control over the whereabouts of its subjects. This was especially important in the Balkans, where population movements accelerated dramatically after the mid-eighteenth century, as a result of large-scale migration between Ottoman and Russian territories. Quarantine, which the Ottomans began to implement in the areas of Moldavia, Bulgaria, the Crimean peninsula, and the Danubian principalities, was meant to check massive population movements that affected agricultural settlements and commercial activities. In the 1830s, many quarantine stations were set up in the Balkans, as a prelude to an empirewide system that would be formed by midcentury. Posts were already functioning in Çanakkale in 1835, and in Izmir in 1837. By the end of the 1840s, as many as eighty-one quarantine stations were in operation in the empire, almost all of them in the Black Sea area, the Balkans, and the capital's environs. For the Ottomans, quarantine was one component of a new migration-management policy, which also included regulations restricting travel and the deployment of soldiers to enforce them, as much as it was a means to prevent the spread of diseases.[54]

The many cholera and plague epidemics of the 1830s, and the empire's desire to increase its involvement in the life of its subjects, led it to establish the Ottoman Quarantine Council, in May 1838.[55] The council was entrusted with expanding health measures already in use, and devising quarantine regulations that would control population movement into the capital. In June 1838, the council issued orders to all commanders of quarantine posts along the Bosphorus and Dardanelles, to detain and inspect all ships and

travelers. The same directives were distributed a year later to the diplomatic community, in French; they closely resembled quarantine procedures that had been in use in European ports for centuries.[56] Continuing to function until 1914, the council initially consisted of eight members, four Turks and four European physicians. More representatives of the European powers served as observers. As the council chair was a Turk and his consent was required for every decision, the Ottoman government retained control of health (as well as migration) matters in its hands, although it did acknowledge Europe's supremacy in handling epidemics and in medical knowledge generally. According to Panzac, it was not the Europeans that coerced the sultan into creating an official health forum; rather, they sent delegates to the council only after the Ottomans had requested it. In fact, many European officials had reservations about the empire's sanitary project, realizing its goals were wider than merely preserving health.[57]

By the early 1840s, European merchants and diplomats were limiting the use of quarantine throughout the Mediterranean, primarily for commercial reasons but also because of a realization that quarantine was ineffective against plague and cholera. It was becoming clear that improving sanitation within cities, including proper street cleaning and waste disposal, was a better recipe for avoiding diseases than shutting down ports for weeks. In North Africa, the French took over the management of quarantine from local governors and established their own sanitary councils that would determine where and when to impose it, sometimes against the wishes of local governors. After their conquest of Algeria in 1830, the French were in control of quarantine stations in Tunis and Morocco as well.[58] In areas under Ottoman rule, and in Egypt and Syria under Muḥammad ʻAli, local health offices continued to be built and managed by officials appointed from Istanbul or Cairo. Between 1839 and 1841, seventeen such offices were opened in the Balkans and the Levant. By 1848, there were sixty offices along sea and land borders. In some places, limited-term isolation of all persons and merchandise was required. Ships passing through Ottoman ports had to carry a bill of health, the status of which determined the length of quarantine period needed in the port of destination.[59]

Why did the Ottoman government insist on a quarantine policy in the 1840s and 1850s, when Western Europe was already doing away with such methods? European physicians and diplomats sat on the Ottoman Quarantine Council, and the Ottomans must have been aware of the scientific knowledge that gradually ceased to consider isolation an effective way to prevent diseases. They were also

conscious of European reservations about their actions. Furthermore, the Ottomans understood plague was no longer a serious danger to their state: Plague had gradually disappeared from the empire from the late 1830s, a fact the Ottomans acknowledged by closing some quarantine stations in the Balkans.[60] It is hard to imagine that, with all their eagerness to imitate European practices during the Tanzimat, the Ottoman authorities were oblivious to the new European approach to disease prevention: infectionism (assuming that plague was caused by exposure to infections), which was gradually replacing contagionism (assuming transmission of diseases between people, or via miasma). Although the reasons were unclear at the time, methods based on the infectionist approach proved more successful in preventing plague, because they aimed at providing a cleaner environment, where humans interacted less with rats and other disease-bearing agents. The development of street cleaning and garbage disposal services in the Ottoman capital and some other new regulations, from the 1850s onward, clearly indicate that the Ottomans recognized the benefits of maintaining clean surroundings, at least in broad terms.[61]Health principles alone, then, cannot explain the persistence of Ottoman quarantine policy in the 1840s and 1850s.

As already noted, the purpose of spreading an extensive network of quarantine stations was twofold: preventing plague and controlling population movements. While the futility of isolation in preventing infectious diseases was becoming increasingly apparent, the empire's sanitary policies that were based on that principle continued to play a role in reinforcing the centralized state with its expanded government. Quarantine offered more than presumed protection against the plague: It was an expedient tool for controlling trade movement, population migration, and borders. Accordingly, many of the quarantine stations set up in the 1840s were also customshouses.[62] The proliferation of lazarettos–customshouses allowed the government to intrude into the private spheres of its subjects, follow their movements, and know what they were buying and selling. Ottoman health policy, then, served the state in reaching out into areas where it had hitherto been absent. The Quarantine Council was one of many such councils (*meclis* or *nezaret*) the empire established during the Tanzimat, some of which would later evolve into full-fledged ministries. Quarantine was an effective tool for creating a far-reaching bureaucracy, a central tenet of the Tanzimat. As such, the Ottoman government had no intention to stop using it in the Mediterranean and the straits leading to the Black Sea.[63]

In 1851, the first International Sanitary Conference convened in Paris. Its official purpose was to set international health standards,

especially the prevention of cholera. In practice, the debate about disease actually concerned the control and security of borders, and international commerce. The British, who had opposed quarantine since at least the 1830s, on the grounds that it did little to prevent disease but was a "nuisance to trade," joined the French and Austrians in arguing that times had changed, and that rapid communication and transportation rendered quarantine ineffective. The Ottomans rejected this approach, in part due to the condescending attitude of the European delegates toward the people of the Orient, and their sense that the other parties cared only about preventing cholera in Europe and enhancing European control over trade routes. The 1851 conference ended with little agreement.[64] Nine more such conferences were convened until 1894. The unified stance against the Ottoman Empire on the issue of quarantine, which the powers displayed in the first conference, was shaken later in the century when German, Austrian, and Russian delegates to the international conferences or to the Ottoman Sanitary Council supported Ottoman policies.[65]

Another reason for Europe's failure to convince the Ottomans to change their health policies was undoubtedly the double standard with which the European powers treated the Ottomans. On one hand, they pressured the Ottomans to give up quarantine in the Mediterranean and the Straits, arguing it was ineffective and even counterproductive, as it was in the lazarettos that epidemics broke out. On the other hand, Europeans insisted that pilgrims in the Ḥijaz (as well as travelers on ships from India) be put in isolation for days, even when it meant that many would not survive and despite the already known medical inefficacy of quarantines. Their fear – not entirely unfounded – was that the ḥ*ajj* might create conditions for cholera to spread from East and Central Asia to Europe via vessels carrying pilgrims. This concern became real after the cholera outbreak in the Ḥijaz in 1865, and after the opening of the Suez Canal in 1869, which significantly cut the time required to travel from Asia and the Ḥijaz to the Mediterranean. Even before then, the British and French insisted on quarantining pilgrims through their involvement in the Alexandria Quarantine Board, an international body formed during the 1831 cholera outbreak with Muḥammad 'Ali's encouragement to coordinate prevention efforts. The formation of the Conseil sanitaire maritime et quarantenaire in Egypt after the 1866 Istanbul sanitary conference marked the intensification of European intervention. Primarily controlled by Egyptians at first, the Conseil transformed from the 1880s into an international body run by representatives of the different European powers. Just as with quarantine in the Mediterranean, disagreements among European delegates were hardly about sanitation. From the late 1860s to the early 1890s, Europeans

attempted to balance so-called sanitary concerns, as reflected in the quarantining of ships and passangers, with economic interests. Restriction of movement in the Suez Canal had, however, little to do with public health. Rather, it was tainted by colonialist and racial views that regarded the people of Asia and Africa as inferior and thus more likely to spread disease regardless of their actual medical condition. The prevailing view among participants of the international sanitary conferences was that the Orient, and particularly India and the Ḥijaz, was the cradle of epidemic diseases. The conferences of 1892 and 1894 adopted resolutions to separate Western travelers and pilgrims, allowing the former to pass in the canal without inspection. Needless to say, such policies did little to prevent the outbreak of cholera, as pilgrims were crammed into overcrowded ships and forced to spend weeks in quarantine stations whose population overflowed and where no clean water was available.[66]

European powers also failed to understand that the Ottomans relied on revenues from quarantine stations and lazarettos to pay for their expanding public health system, and hence were not likely to relinquish them. The empire collected a tax from foreign ships passing through its waters and managed to raise the rates several times throughout the century, to the dismay of the British, who had the largest volume of commercial vessels passing through Ottoman waters at the time. In the 1866 conference, the British complained that the Ottoman quarantine was "overstaffed, overpaid, and could reduce the number of its offices."[67] The British call for the reduction of rates reflected their desire to expand their control in the Mediterranean, and to see the Ottomans revise their public health program. But the contagionist approach served the Ottomans well. It allowed them to maintain control over their shores and borders, and they were not likely to change it much, despite international pressure and the growing recognition among the scientific community that other measures to prevent disease were needed.[68]

City Planning

Like quarantine, urban planning and the assimilation of cities in state administration allowed tightened government control over areas where its presence had hitherto been scant. Ottoman urban development in the nineteenth century followed patterns familiar in early modern Europe. There, as we have seen, urban realities were shaped by the introduction of state rules for building and maintaining houses and streets, and by the enforcement of conduct norms within city limits. Earthquakes and fires offered an opportunity to mold a new urban order by destroying the old and rebuilding according to

modern principles. This often left less room than before for privacy and narrowed people's options to evade the eyes of the authorities. As against this, in the Ottoman Empire before the nineteenth century, rebuilding cities after earthquakes and fires focused on restoration rather than innovation, and usually excluded private areas. There were exceptions to this routine, as when certain interests dictated demolishing a city section and erecting it anew. Such was the case after the Istanbul Great Fire of 1660, when Jews were evacuated from the Eminönü quarter and resettled in Hasköy so as to make room for a mosque complex. But large-scale changes of this kind were rare, and were more likely to happen in the capital than elsewhere.[69]

Simultaneously with the development of a centralized health policy, the Ottoman shift from city reconstruction to city redesign occurred in the nineteenth century and mostly in its second half. Accounts from the 1820s indicate that at that time the change was still in the future. In August 1822, a strong earthquake hit southeastern Anatolia and northern Syria, causing extensive damage in 'Aintab, Antakya, Adana, Idlib, Aleppo, and many smaller towns and villages in the area. Ottoman and foreign sources reveal that the government's response did not differ much from the typical reaction to similar events in the eighteenth century. In 'Aintab, a group of notables sent a petition to the Porte, asking to be relieved of the duty to supply flour, barley, and sheep to the army stationed in Erzerum. A decree ordering the city to send these provisions (and be paid accordingly) had apparently arrived two days prior to the earthquake. Now, with the town nearly destroyed; many of its residents dead, injured, or gone; and the survivors groping for food, the petitioners requested that the state withdraw its demand, and orders were indeed issued to rescind it.[70] Another plea, from Aleppo, requested the government to help the survivors who had left their homes, jobs, and property and were camping in fields outside the city.[71] According to extant sources, the state did not immediately embark on the rebuilding of Aleppo. Many of the survivors continued to live in temporary lodging outside the city center more than a year after the quake, and the city seems to have declined commercially. In the years after the earthquake, it was rebuilt gradually, but not by a comprehensive state-sponsored plan.[72]

As part of the response to the petitions received from Aleppo, a garrison of some three thousand soldiers was sent to the city, headed by one Mehmet Bahram Paşa, and remained there for months. This special force had two prime duties: to protect the Aleppo people living in the city's gardens and their property from Bedouin raids; and to secure the transfer of abandoned property to the state. By Ottoman law, the property of those who died without heirs belonged to the

state, and an official who arrived with the troops from Istanbul was to register all such property and ensure it was appropriately passed to the treasury.[73] This was an unusual measure, but it did not necessarily signify a shift in the standard Ottoman response to earthquakes. Rather, it might have been an ad hoc move to increase revenues at this point. Similarly, limited and slow repairs of damage caused by the 1837 major earthquake in Palestine and Syria, and a few smaller quakes, would suggest that, in the first half of the nineteenth century, the Ottomans were not yet thinking of earthquakes and fires as opportunities for new urban planning. [74]

Less than two decades later, a different picture emerges for Ottoman postdisaster reconstruction. Two earthquakes shattered Bursa in late February and April of 1855, followed by fires. The quakes and fires destroyed large parts of the city, including many homes, mosques, *hans*, *hamams*, and other public structures. Reconstruction took many years. Foreign visitors to the city in the late years of the decade reported that much of it was still in ruin.[75] The French traveler Moustier, who visited the city eight years after the quake, was disappointed by the many structures still "lying at the place where their pride had fallen."[76] It should be borne in mind that from the 1850s and into the 1870s, the empire faced a series of wars – of which the Crimean War (1853–6) was the most devastating – and an aggravating fiscal crisis due to excessive expenses and borrowing; these could perhaps partly explain the delay in reconstruction in Bursa. Yet, judging the rebuilding of Bursa only by its pace omits a significant facet of the Ottoman changing approach to disaster recovery.

The first account of the quake arrived in Istanbul five days after it occurred. Two weeks after the earthquake, the Ottomans had already produced a report laying out measures to coordinate relief efforts. It specified burned and toppled structures, as well as those in danger of collapsing, that needed to be torn down. The report also called for the appointment of a commission that would prepare a list of all buildings in need of repair and the costs involved; announced measures to place earthquake or fire victims who had lost their homes in temporary housing; and allocated 300,000 *guruş* to help people rebuild their homes.[77] An account written on 3 April 1855, only eight days prior to the second quake, confirms that engineers were already working in the city and suggests that there were financial difficulties paying them.[78]

When the second quake hit, the governor of Bursa, İsmet Paşa, was in Istanbul. The imperial military council (*meclis-i vala*) sent its second secretary, Midhat Paşa (1822–84) – the same Midhat who would later

become grand vizier and drafter of the first constitution – to Bursa to oversee relief efforts.[79] He arrived there in mid-April with the promised 300,000 *guruş* and five hundred tents, which he supplied to people who needed temporary lodging. Upon his arrival, Midhat ordered a survey to be conducted of all state (*miri*), *evkaf*, and other properties in preparation for rebuilding. He then divided the survivors into three groups by levels of need; Muslims and non-Muslims were reportedly present in each group, with no discrimination against *dhimmis*. A few days later, Midhat brought three hundred workers to the city to open up streets for passage and demolish walls and parts of buildings that were about to collapse. He then distributed the funds in the different neighborhoods, so people could start rebuilding their homes. Some of the money, however, was allocated for rebuilding the fort (*hisar*) and the Ulucamii mosque. Midhat ordered work on these to start immediately, as he believed that the sight of these monuments being restored would evoke hope and impress on the people of Bursa a sense that life was returning to normal. The renovation of the Ulucamii was completed in August 1858.[80] Midhat received the backing of the imperial government for his actions in Bursa, from rebuilding, through establishing commissions, to deciding who would obtain funding and what structures would be demolished.[81]

Much credit for the replanning, restoration, and modernization of Bursa should be given to Ahmet Vefik Paşa, who from 1860 to 1882 served intermittently as governor of the province of Bursa. Ahmet Vefik started building the city on the basis of a comprehensive plan laid down by Suphi Bey, who completed it in 1861. Suphi's plan, which Ahmet Vefik later expanded, was informed by Tanzimat principles. It presented an architectural style that combined old and new, with many of the old monuments restored to previous specifications. In his time in Bursa, Ahmet Vefik built new roads and widened existing ones, often overrunning the old features of the city when necessary. He hired French and British engineers to redesign the city according to Western standards, and they crafted a modern plan with streets that connected to each other, quite unlike the myriad dead-end streets that had characterized Bursa before the quakes. To carry out these plans, Ahmet Vefik tore down a large number of houses, to the dismay of many inhabitants. He also took advantage of two smaller fires that occurred in 1863 and 1872 to create wide streets and avenues. In addition, Ahmet Vefik introduced a new system of water supply and drainage. And, to reflect the growing role of municipal authorities in the empire, he erected several new government buildings.[82]

The rebuilding of Bursa, an unusually protracted operation, signified

essential shifts in the empire's dealing with disasters, shifts that reflected the social and political changes the country was undergoing. The most apparent difference from earlier periods was the investment of treasury money in rebuilding private homes and placing victims in temporary houses and tents. This required not only allocating funds for previously unfunded objectives, but also registering people and property with unprecedented accuracy. The empire's evolution into a welfare state came at a price: deeper penetration into people's private domain and personal lives. As part of that intensifying involvement, more government buildings were constructed and the bureaucracy in the city was expanded. The distribution of tents to victims was not just a welfare act; it was a calculated measure to prevent people from fleeing the area by addressing their immediate need for lodging nearby. This measure should be seen in the broader context of the empire's drive to control and monitor population movements in the nineteenth century, which was also seen in the empire's new plague-prevention policy. By the 1890s, the people of Bursa lived in a modern and relatively clean city that was also under closer governmental control.

Beyond boosting state rule and tightening control over people's lives, other novel measures taken in the Bursa postquake reconstruction reflected the Tanzimat spirit. This was most fitting, for both Midhat and Ahmet Vefik were champions of Ottoman reform. Such was the absence of discrimination between Muslims and non-Muslims in the allocation of resources. Previously, the state would not fund reconstruction of buildings whose function excluded Muslims: churches, synagogues, and other *dhimmi* communal institutions. These had been considered as extraneous to the urban public domain, which was predominantly Islamic.[83] In Bursa, for the first time, we read of an administrative division of the population into groups that were not based on religious affiliation. According to extant reports, religious faith ceased to be a factor in deciding whom to fund. This seems to have been such a remarkable novelty that representatives of the different non-Muslim groups in Bursa sent Midhat letters of appreciation.[84] The hiring of European architects to help with the city's replanning was another departure from past practice. By so doing, Ahmet Vefik, like the Ottoman sultans of the nineteenth century, acknowledged European artistic and technological expertise. Overall, the Ottoman reconstruction of Bursa, which continued piecemeal into the early twentieth century, epitomized the evolution of the empire from an early modern to a modern state.

Natural Disasters and the End of Empire

Historians have so far attributed the collapse of the Ottoman Empire in World War I to economic, diplomatic, and military developments and failures. These included surmounting debt, increasing dependence on the European powers, and territorial losses. The latter intensified from the 1870s and included Cyprus (to Britain in 1878); Montenegro, Romania, and Serbia (gaining independence in 1878); Egypt (to Britain, 1882); Kuwait (to Britain, 1899); Bulgaria (gaining independence in 1908); Libya (to Italy, 1912); Albania (gaining independence in 1912); and Macedonia (partitioned among Serbia, Greece, and Bulgaria in 1913).[85] Thus on the eve of World War I the empire had substantially shrunk compared to what it had been upon Abdülhamid II's accession. The military conflicts that led to some of those losses, such as the Russo-Ottoman War of 1877–8, the Italian invasion of Libya in 1911, and the Balkan Wars of 1912–13, left the Empire's forces lacking in equipment and personnel. The fate of the empire was therefore determined before World War I, and it would have had little chance of surviving the war even if the Central Powers emerged on the winning side.[86] Such an explanation for the empire's fall largely leaves out natural factors such as disease or famine that had plagued the army and civilian population for several decades prior to the war and considerably weakened the empire's ability to withstand external threats.

The nineteenth century saw an overall decline in the occurrence and ferocity of natural disasters in Europe compared to earlier times, due to technological and scientific advances and the warming temperatures of the post–Little Ice Age era. Having undergone extensive changes during that period, the empire should have expected a comparable drop in the number of calamities and milder results. The adoption of agricultural technology through establishing model farms and opening higher schools for agriculture, and the foundation of the agricultural bank (*ziraat bankası*) that provided credit to cultivators to develop their farms and purchase machinery, reduced the risk of failed crops.[87] Earthquakes could not be predicted or prevented; but the introduction of modern city planning with wider streets, regulation of building heights, and the use of stronger and less flammable materials reduced potential damage from quakes and fires. This was so especially in newer areas of Ottoman towns, which were built along the new models.[88] Standards set after the Bursa quake were implemented later in the century as well, for example, after the 1894 earthquake in Istanbul[89] and the one in Balıkesir in 1898. In the latter, victims were first provided with huts as temporary housing, while services like the telegraph were being restored. Then public buildings were rebuilt, and eventually private homes too. The authorities insisted on a minimum distance between houses to reduce

the risk of future damage and called upon the local population to volunteer to help with the reconstruction of the town, and it did. Rebuilding Balıkesir took ten months, during which schools and most businesses were closed and many people could not work. One study found that such priorities and concerns – of the type the state had never cared about before – prompted the government to speed up the rebuilding process, which in previous disasters took several years to complete.[90]

Such developments notwithstanding, the empire continued to experience frequent and severe natural disasters throughout the nineteenth and in the early twentieth century. Newly adopted technologies could be helpful only up to a point to the empire, which, in addition to rebellions and wars, also had to contend with hot and cold climate spells that led to devastating droughts and carried locusts from Africa into the eastern Mediterranean and Anatolia. Drought beset locations in the empire in seventeen of the forty-two years from 1838 to 1880, and locusts destroyed extensive crops in at least nineteen of the seventy-eight years from 1802 to 1880. This caused severe shortage of grain, particularly in the late 1840s and early 1850s and again in the early 1870s. The empire thus continued to suffer from famine during much of its final century, which in turn exacerbated problems of population movements and epidemics.[91] The late adoption of health standards based on an infectionist understanding of disease – decades after the European and North American medical communities had abandoned the notion of miasma – also contributed to the recurring eruption of cholera epidemics well into the twentieth century.[92]

The Ottoman continued insistence on quarantine bothered the Western powers and upset health officials in Europe; but it was above all the Ottomans who suffered the consequences. One place where disregard for the principles of infection resulted in especially severe consequences and cost the lives of many was the Ḥijaz. Attracting tens of thousands of pilgrims every year, who would assemble to pray together in large and dense crowds, the Ḥijaz was a hub for spreading disease. Of the sixty-nine years between the first appearance of cholera in the region and the end of the nineteenth century, the malady erupted there in at least twenty. As we have seen, European powers were alarmed by cholera outbreaks in Mecca and Jeddah and by the possibility that pilgrims would carry the disease back home, to areas under Western power rule, such as Indonesia, India, and the North African countries. The cholera epidemic of the early 1850s, also known as “the Third Pandemic,” and the convening of the International Sanitary Conferences starting in 1851, marked the

beginning of gradual (and rather slow) abandonment of quarantine by the empire in favor of other preventive methods, such as supplying clean water and improved sewer systems. Yet, while pressuring the Ottomans to abandon quarantine in the Mediterranean, the European powers insisted on adopting stricter quarantine measures in the Ḥijaz and the Suez Canal. Quarantine could not resolve the problem of cholera in the Ḥijaz or on ships carrying pilgrims; but it achieved exactly what the Europeans had wanted: the prevention of sick pilgrims and people arriving from areas perceived to be epidemic-ridden from reaching Mediterranean ports. While the European powers would continue to play a key part in controlling passage in the Suez Canal into the twentieth century, epidemics in the Ḥijaz remained primarily an Ottoman problem from the mid-1850s on.[93]

In 1856, 1857, 1860, and 1865 cholera epidemics broke out in the Ḥijaz, and the Ottoman authorities responded by inspecting ships entering ports in the area and by quarantining suspected pilgrims and commodities. These measures achieved poor results in preventing the spread of the disease, and a medical commission was dispatched from Istanbul in 1866 to investigate and improve health conditions in the Ḥijaz (see Figure 5.1). Among its members were physicians trained in Europe, who readily realized what measures were required to lower the risk of future outbreaks. They issued a report that underscored the need for clean water and food supply, reducing crowding in prayer sites and lodging facilities, and ensuring that slaughtered animals were sacrificed or consumed immediately. In addition, the commission set up facilities for promptly treating those who became sick. After submitting its recommendations, the commission left the Ḥijaz. Another team was sent there the following year, and a permanent one was established in 1868. Although some of the commissions' suggestions were implemented, cholera kept appearing in the Ḥijaz. Cleaning streets and ensuring adequate water supply were conducted haphazardly, being only a complementary aspect of the Ottoman health policy in the region; the main prevention effort still focused on quarantine. In the 1860s, there was a quarantine post at every port city from Yemen to the north Red Sea, and the greater share of the budget allocated for the purpose of fighting cholera was devoted to the operation of these stations.[94] Cholera recurred in the Ḥijaz in 1872, 1877, 1881, 1882, 1883, 1890, 1891, and 1893, claiming the lives of thousands of pilgrims. The efforts of Ottoman health officials notwithstanding, most pilgrims stayed in overcrowded and filthy places while visiting the area, with no access to clean water. The few water canals the Ottomans built in the 1870s could not adequately address the needs, and cities like Jeddah and Mecca continued to suffer from contaminated water supply.[95] In other parts of the empire,

attempts to fight cholera using the old methods proved just as futile.[96]

Figure 5.1. Ottoman physicians on their way to the Ḥijaz. *Source: Servet-i Funun*, 7:164, 3 May 1894.

As already noted, it was only in the 1890s that the Ottoman government fully adopted the infectionist approach, recognized the bacterial findings of Robert Koch and Louis Pasteur, and began to apply sanitary measures within its borders. The growing number of Ottoman physicians trained in Europe and the presence of French, English, and Austrian doctors in the Ottoman capital no doubt contributed to this change. The immediate catalyst seems to have been the cholera outbreak of the early 1890s, also known as "the Fifth Pandemic." Sweeping through Asia and Europe, it erupted in at least twenty-three locales in Anatolia.[97] In 1892, the city of Istanbul decided to expand sanitary regulations that had been in effect since midcentury but were limited only to major roads and seashores. The city embarked on a campaign of chemically cleaning public toilets in mosques, *han*s, *hamam*s, and other public places that served large crowds. More thorough street cleaning measures, which included the penetration of neighborhoods and alleys where state employees had not set foot before, as well as daily inspections of grocery and butcher shops, inns, and even homes, followed in 1893. The inspectors, mostly European-trained Ottoman officials, suggested that sewage openly running in the streets was a likely cause for cholera and sought to ensure that businesses and homes complied with new sanitary standards.[98]

When the 1893 epidemic broke out in the summer, the Ottoman government requested the advice and help of European doctors. The most prominent in that group was André Chantemesse (1851–1919), a French bacteriologist who had worked in the labs of Koch and Pasteur. After the Ottoman embassy in Paris received a copy of his work on ways to prevent cholera and forwarded it to Istanbul, Chantemesse was invited; he arrived in the Ottoman capital in late September. In his early report from Istanbul, he attributed the problem to the city's dense and filthy houses, outdated water supply system, and lack of an appropriate sewer-disposal system. The General Commission for Hygiene (*hıfzıssıhha-i umumi komisyonu*), a body formed in August 1893 to coordinate efforts to limit the spread of cholera, adopted Chantemesse's recommendations. A proposal Ottoman physicians submitted to the city's *şehremini*, to train doctors in bacteriology, was accepted and led to the opening of the first "bacteriology house" (*bakteriyolojihane*), in April 1894.

These developments fitted the spirit of the time. From the sultan to lower-ranking Ottoman officials and among the intelligentsia, there was, so it seems, profound fascination with modern science and with Western European material culture in general. The Hamidian regime, it is true, tried at times to block European influences and used Islamic rhetoric that countered that of the Tanzimat; but in practice Abdülhamid II, a passionate admirer of classical music, opera, and theater, internalized many European values. It was under his rule that such forms of artistic expressions as the play and the novel flourished in Ottoman Turkish. The growing fascination with everything European led to the establishment, among other institutions, of a popular scientific press that produced books and journals for the general public. Becoming immensely popular in the last quarter of the century, scientism, social Darwinism, and materialism theories engendered a shift in the state's application of scientific methods.[99] It could thus be expected that Ottoman officials would finally abandon the old medical and hygienic practices. By the mid-1890s, it appears, the empire had indeed accepted the germ theory of disease, even if it did not give up completely on quarantine.[100]

The adoption of an infectionist explanation for diseases and the enactment of advanced public health policies were, alas, too little, too late. Building new water supply and sewer systems required a long time, as did the widening of streets (despite replanning opportunities created by earthquakes, as in Istanbul and Balıkesir) and the enforcement of new rules for domestic living. The changes introduced did not suffice for preventing the outbreak of cholera again in 1895, or its continued recurrence in the capital and throughout the empire

in the twentieth century and into the republican era.[101]

The Ottoman Empire, which in its final years faced financial and political problems, military challenges, and territorial losses, also had to contend with frequent natural disasters of all sorts. Among these were more earthquakes, fires, floods, droughts, and famines, as well as epidemics, some of a long-familiar type and others of diseases previously unseen in epidemic proportions, such as typhus.[102] Cholera and typhus beset the Ottoman Empire during its last decade, with an epidemic outbreak in each of the years from 1912 to 1918, in several locations. The Ottoman military was the primary victim of these recurring epidemics, which claimed many lives even before the guns began to fire, and hindered any meaningful progress of the army. Already in the Crimean and Russo-Ottoman Wars (1853–6, 1877–8) many more Ottoman soldiers died from epidemic disease and starvation than in combat as a result of poor hygienic conditions at the front and in hospitals, and famine in Anatolia and southeastern Europe that caused immense supply-line problems.[103] During the Balkan Wars (1912–13), cholera, typhus, dysentery, and syphilis appeared repeatedly in military camps despite attempts of army medical officials to curtail them.[104] The diseases struck civilian places, too, with casualties reported in 1912–13 throughout areas in Bulgaria and Macedonia, as well as in the environs of Istanbul and parts of Anatolia. Local authorities in the infected areas responded by forming commissions that issued orders to disinfect neighborhoods and people, close contaminated water sources, prohibit the selling of spoiled fruits, and, still, enforce quarantine. Yet even in Istanbul, where cleaning and disinfecting efforts were at their utmost, they proved insufficient for checking the spread of cholera and other diseases.[105]

In summer 1914, shortly before the Ottoman entry into World War I, the city of Istanbul launched a comprehensive plan for combating disease. It included screening passengers arriving by train and sea before disembarking and spraying them with disinfectants; quarantining new soldiers in a *tahaffuzhane* for fourteen days before they joined their units; establishing centers for treating typhus patients; ordering hotel owners to keep their facilities clean at all times at risk of closing if failing inspection; and opening more *hamam*s in poor neighborhoods so as to enable the residents to clean themselves.[106] Such efforts bore little fruit in the overall scene of disease and famine, and the latter even worsened as a result of frequent and recurrent locust attacks in Istanbul, Karesi, Denizli, Aydın, Izmir, Antalya, Karaman, Aleppo, and Urfa – to name just a few places – from 1914 to 1918. In major cities, such as Istanbul and Edirne, even bread became scarce.[107]

Why did natural disasters take such a heavy toll on the Ottoman Empire even after it adopted modern scientific methods and technology? One obvious reason is that change was much easier to announce than to implement. In the nineteenth century, the empire sought to transform itself into a modern state, in part by adopting European concepts and innovations. In some areas, however, new ideas and reforms clashed with old practices. A telling example for our story is the introduction of quarantine into Egypt in the early nineteenth century. As already noted, the French imposition of quarantine to combat plague, later adopted by Muḥammad ʻAli, caused much turmoil within Egyptian society and could not be fully enforced even decades later. Quarantine entailed changing centuries-long social practices of people's interaction with the environment, of which plague was one familiar element. It is therefore quite likely that many of the changes in health practices and sanitation or city planning and reconstruction discussed in this chapter were not measures ordinary people and government officials adopted enthusiastically. Despite efforts to check the spread of epidemics, health standards within Ottoman army units and in hospitals might not have been adequate, and many cities probably still lacked clean and steady water supply by the turn of the twentieth century.

Improvements in sanitation and food supply were also hindered by demographics. By the mid-nineteenth century, the empire had still not recovered from the drop in population due to the Little Ice Age, unlike Western Europe or China, which had seen their populations rise significantly since the mid-seventeenth century. Eastern Mediterranean society relied mostly on agriculture and experienced what Sam White termed a "vicious cycle of contraction," by which migration to cities would lead to population decline in rural areas, causing reduced production of subsistence foods, which in turn led to famine and greater susceptibility to disease. This would then push more farmers into nomadic lifestyles, which would further contribute to the fall in food production, and hence to more famine and disease. When security in the countryside deteriorated (as it often did in Ottoman frontiers), many of those peasants-turned-nomads would seek refuge in urban centers, increasing demand for food but not production. Thus until the 1850s some of the empire's rural areas were sparsely populated; the population of cities was constantly on the rise, yet the empire as a whole had fewer people than France or Japan. This demographic trend only began to reverse from midcentury, thanks to aggressive military campaigns targeting nomadic populations that secured the frontiers, agricultural industrialization, government centralization, and improved

sanitation.[108] Population in the empire was rising steadily from the 1860s, and agricultural production was growing. But in the late nineteenth century, Ottoman cities were still overpopulated and dense, streets filthy, and food supply precarious.

The empire's poor finances also made it difficult to contend with natural calamities. Until the Crimean War, the empire had not resorted to borrowing. The prohibitive costs of the war led the Ottomans to seek a loan from Britain and France in late 1853. The funds were transferred to the Ottomans only when the war was over in early 1856; by the end of the summer they were already spent.[109] From that point and into the 1870s, the empire continued to borrow money from Europe and spend it on its increased bureaucracy and modernized army and infrastructure. Mounting debt eventually led to bankruptcy of the Ottoman state in October 1875. Contributing to the empire's inability to pay its debt was the Anatolia famine of 1874, a result of excessive taxation and drought that led to limited agricultural production. The famine forced the Ottomans to grant considerable subsidies to farmers and city dwellers to prevent starvation, and hence drained the sparse funds the empire still had. The Ottoman bankruptcy led to further European control of the empire through the 1881 formation of the Ottoman debt administration, a European bureaucratic apparatus responsible for collecting the Ottoman public debt.[110] French and British involvement in the empire continued with takeover of Ottoman territories, such as Tunisia in 1881 and Egypt in 1882. By then it was clear that the empire had lost financial independence. Its economic predicaments no doubt imposed further difficulties on attempts to improve public health, which required investments in equipment, infrastructure, and personnel. Thus if up to the mid-nineteenth century we talk about a "vicious cycle of contraction," from the 1850s on we can talk about a "vicious cycle of dependency" whereby excessive spending on war led to borrowing, which led to further dependence on Europe and growing debt that hindered the state's ability to confront natural disasters, which then led to further losses on the battlefield, once again increasing dependency on European powers, and so on.

Finally, there was also bad luck: A series of epidemic outbreaks, famines, and earthquakes beset the empire from the 1890s and left little opportunity for recovery. It is therefore not surprising that in World War I, by some estimates, famine and disease were responsible for about half of the overall Ottoman casualties, and for many more victims in civilian areas through which Ottoman forces passed, or where the Ottoman military was stationed and fought. Compared to the estimated 10 to 12 percent of soldiers who died of similar causes

in other armies that fought in the war,[111] it becomes evident that the Ottomans were at a considerable disadvantage from the moment they entered the war. Poor public health conditions and famine were the straw that broke the camel's back: Combined with strategic and diplomatic mistakes, an underequipped army, inflation, and mounting debt, these factors ensured that the Ottomans had little chance of emerging from the war on the victorious side.

1 "Tremblements de terre en Turquie," *Le Figaro* 15 July 1894, 2.

2 For more on the Istanbul earthquake, see Amit Bein, "The Istanbul earthquake of 1894 and science in the late Ottoman Empire," *Middle Eastern Studies* 44 (2008), 6:909–24. A study conducted in Turkey following the Izmit earthquake of 1999 found that 76 percent of respondents still believed God was the cause of seismic activity (Talip Küçükcan and Ali Köse, *Doğal âfetler ve din: Marmara depremi üzerine psiko-sosyolojik bir inceleme* [Istanbul: Türkiye Diyanet Vakfı, 2000], especially 91–116).

3 E.g., Hanioğlu, *A Brief History*, 150–202; Suraiya Faroqhi et al., *An Economic and Social History of the Ottoman Empire.* Vol. 2. *1600–1914* (Cambridge: Cambridge University Press, 1997), 761–76; Finkel, *Osman's Dream*, 447–554; Mustafa Aksakal, *The Ottoman Road to War in 1914: The Ottoman Empire and the First World War* (Cambridge: Cambridge University Press, 2008); Michael Reynolds, *Shattering Empires: The Clash and Collapse of the Ottoman and Russian Empires, 1908–1918* (Cambridge: Cambridge University Press, 2011).

4 Ami Ayalon, *Language and Change in the Arab Middle East: The Evolution of Modern Political Discourse* (New York: Oxford University Press, 1987), 3.

5 See, for example: Lewis, *Emergence*; Hanioğlu, *A Brief History*; Finkel, *Osman's Dream*, 384ff; Suraiya Faroqhi, *The Ottoman Empire: A Short History* (Princeton, NJ: Markus Wiener, 2009), 111ff; Erik Zürcher, *Turkey: A Modern History* (London: I. B. Tauris, 2004), 36–90.

6 Tezcan, *Second Empire*, 191–226.

7 Afaf Lutfi al-Sayyid-Marsot, *A History of Egypt: From the Arab Conquest to the Present* (New York: Cambridge University Press, 2007), 65–97.

8 Sajdi, “Decline,” 6–23; Hathaway, *Arab Lands*, 59–62.

9 Mikhail, *Nature and Empire*, 230–41.

10 For Libya, see Amal Muḥammad al-Maḥbub, *Al-awbiya wal-maja‘at fi wilayat ṭarablus al-gharb* (Tripoli, Libya: Markaz Jihad al-Libiyin lil-Dirasat al-Ta’rikhiyya, 2006); for Tunisia, Gallagher, *Medicine*; for Morocco, Muḥammad al-Amin al-Bazzaz, *Ta’rikh al-awbiya wal-maja‘at bil-maghrib fi al-qarnayn al-thamin ‘ashar wal-tasi‘ ‘ashar* (Rabat: Kulliyyat al-Adab wal-‘Ulum al-Insaniyya, 1992).

11 Lewis, *Emergence*, 94–6; André Autheman, *La banque impériale ottomane* (Paris: Ministére de l’Économie et des Finances, Comité pour l’Histoire Économique et Financière de la France, 1996).

12 Bilgin Aydın, “Salnâme,” *TDVİA*, 36:51–4.

13 Lewis, *Emergence*, 393–400; Ahmed Akgündüz, *Osmanlı devletin’de belediye teşkilatı ve belediye kanunları* (Istanbul: Osmanlı Araştırmaları Vakfı, 2005), 539–93.

14 Mazak, ed., *Sokak ve çevre*, 94–105.

15 Özbek, *Sosyal devlet*, 67–77.

16 Mine Ener, *Managing Egypt's Poor and the Politics of Benevolence, 1800–1952* (Princeton, NJ: Princeton University Press, 2003), 28–36.

17 Ibid., 42–3.

18 Singer, *Charity*, 186–91.

19 Ibid., 196–8.

20 For Ottoman educational reforms, see Benjamin Fortna, *Imperial Classroom: Islam, the State, and Education in the Late Ottoman Empire* (New York: Oxford University Press, 2002), 43–129. For missionary schools, see Tibawi, *American Interests*, especially 150–90. For Alliance schools in the Ottoman Jewish world, see Aron Rodrigue, "Alliance Israélite Universelle network," *EJIW*, 1:171–80.

21 Lewis, *Emergence*, 95–6; Ami Ayalon, *The Press in the Arab Middle East: A History* (New York: Oxford University Press, 1995), 13–23; Hanioğlu, *A Brief History*, 96–100.

22 Hanioğlu, *A Brief History*, 100–1.

23 For more on this process among intellectuals, see Bein, "Istanbul earthquake," 913–19.

24 See, for example, Lewis, *Emergence*, 175–96; Zürcher, *Turkey*, 76–90; J. Deny, "'Abd al-Ḥamīd II," *EI2*, 1:63–5.

25 Lewis, *Emergence*, 184–7; for more on the development of telegraphy in the empire, see Roderic Davison, *Essays in Ottoman and Turkish History, 1774–1923: The Impact of the West* (Austin: University of Texas Press, 1990), 133–65.

26 Masters, *Christians and Jews*, 151.

27 Aron Rodrigue, *Jews and Muslims: Images of Sephardi and Eastern Jewries in Modern Times* (Seattle: University of Washington Press, 2003), 15–21.

28 Masters, *Christians and Jews*, 172–4.

29 Tawtal, *Watha'iq*, 2:93.

30 Yaron Har'el, *Ben tekhakhim le-mahapekha: Minui rabanim rashiyim ve-hadaḥatam be-bagdad, damesek ve-ḥalab* (Jerusalem: Ben Zvi Institute, 2007), and especially 120–2.

31 Avigdor Levi, "Haham başı," *EJIW*, 2:323–6.

32 Yaron Har'el, *Bi-sfinot shel esh la-maʿarav: Temurot be-yahadut suryah bi-tekufat ha-reformot ha-ʻothmaniyot 1840–1880* (Jerusalem: Zalman Shazar, 2003), 27.

33 Tawtal, *Watha'iq*, 1:90–3; 2:53–67.

34 Bornstein-Makovetzky, "Ha-kehilla," 186.

35 Har'el, *Sfinot shel esh*, 104–6.

36 On this see Norman Stillman, *The Jews of Arab Lands in Modern Times* (Philadelphia: The Jewish Publication Society, 1991), 8–14, 47–64; Masters, *Christians and Jews*, 137–41.

37 Mariti, *Travels*, 1:287–9.

38 Robarts, "A plague on both houses," 203.

39 Salvatore Speziale, *Oltre la peste: Sanità, popolazione e società in Tunisia e nel Maghreb (XVIII-XX secolo)* (Cosenza, Italy: Luigi Pellegrini, 1997), 207.

40 Gallagher, *Medicine*, 24–32.

41 Panzac, *Peste*, 447. Panzac labeled the period up to 1831 *le temps des pachas* and the one following it *le temps des états* (456).

42 Ibid., 449–56. For more on Muḥammad 'Ali's antiplague policy, see Mikhail, *Nature and Empire*, 234–7.

43 Robarts, "A plague on both houses," 205–6.

44 Al-Bazzaz, *Ta'rikh al-awbiya*, 87–94.

45 Gallagher, *Medicine*, 40–1; Speziale, *Oltre la peste*, 222–36.

46 Panzac, *Peste*, 455–6.

47 Ibid., 452–4.

48 The ship *Grand Saint Antoin*e that had left Marseille for the Levant in July 1719 returned there in May the following year, having made stops in Sidon, Tripoli, and Cyprus – all plague-ridden places at the time. Although the ship was put in quarantine, a combination of errors led to the offloading of the merchandise on board, and to the plague's spreading in the city a few days later. It killed about 80,000 people in Marseille and the Provence area before being contained (Raoul Busquet, *Histoire de Marseille* [Paris: R. Laffont, 1998], 246–50).

49 Mazak, ed., *Sokak ve çevre*, 54–73.

50 BOA, C. IKT., 2215; C. ML., 715.

51 BOA, HAT, 0278.

52 See, for example, the plagues in Urfa, 1789 (BOA, C. ML., 28260); Khania, Crete, 1799 (C. AS., 43058); Diyarbakır, 1800 (C. İKT., 2215); plague and famine in Adana, 1793 (C. ML., 4218) and Çankırı, 1822 (C. ML., 28114); and famine in Bosnia, 1817 (C. DH., 6241).

53 LaVerne Kuhnke, *Lives at Risk: Public Health in Nineteenth-Century Egypt* (Berkeley: University of California Press, 1990), 51; Panzac, *Peste*, 477–9. In 1837, Miloš Bey, the governor of Belgrade, received an imperial decree supporting his plan to impose quarantine on all traffic entering the city due to a plague (or possibly cholera) epidemic

that broke out in Serbia. See BOA, HAT, 1122/44929H.

54 Robarts, "A plague on both houses," 20–38, 210–13.

55 The announcement of the council's formation was made in the official Ottoman gazette *Takvim-i Vekayi* on 9 May 1838 (Panzac, *Peste*, 479). Ottoman bureaucracy referred to the council by various titles, such as Sıhhiye Karantina Nezareti (the directorate of health quarantine) or Sıhhiye-i Umumiye Meclisi (council for general health). See more on this in Robarts, "A plague on both houses," 215, n. 95; Osmanlı Arşivi Daire Başkanlığı, *Başbakanlık Osmanlı Arşivi rehberi* (Istanbul: Devlet Arşivleri Genel Müdürlüğü, 2000), 247–8.

56 The council instructed quarantine stations to check every ship's bill of health (*patente*) and place them in isolation as necessary (Robarts, "A plague on both houses," 215–17).

57 Panzac, *Peste*, 480–3. The membership of the council changed over time: In 1877, it had five Turks and three Europeans; in 1898, six Turks and two Europeans; in 1914, its last year in operation, all members were Turks.

58 Gallagher, *Medicine*, 40–4; Speziale, *Oltre la peste*, 222–4.

59 Panzac, *Peste*, 489–90.

60 See ibid., 489 and 506–14, for Panzac's explanation of the disappearance of plague from the empire. Plague disappeared from Egypt, Palestine, Syria, Anatolia, and Europe after the late 1830s, only to reappear in the late nineteenth century, in what is known as the Third Pandemic. It is not entirely clear why plague had such a lapse. Possible explanations include improved sanitary conditions, the paving of roads, banning of farm animals from cities, and the

development of industry; all of these reduced contacts between humans and rats. Climate changes and a decrease in the overall rat population in Europe and the eastern Mediterranean might have also contributed to the disappearance of plague in this period. For more on this issue, see Biraben, *Les hommes*, 1:109–17.

61 Mazak, ed., *Sokak ve çevre*, 94.

62 Robarts, "A plague on both houses," 222–8.

63 Carter Vaughn Findley, "The Tanzimat," in Reşat Kasaba, ed., *The Cambridge History of Turkey*. Vol. 4. *Turkey in the Modern World* (Cambridge: Cambridge University Press, 2008), 24; Lewis, *Emergence*, 95–9.

64 Valeska Huber, "The unification of the globe by disease? The international sanitary conferences on cholera, 1851–1894," *The Historical Journal* 49 (2006), 2:456–61.

65 Ibid., 459; Bulmuş, *Plague*, 143–4; Kuhnke, *Lives at Risk*, 105–7.

66 Valeska Huber, *Channelling Mobilities: Migration and Globalisation in the Suez Canal Region and Beyond, 1869–1914* (New York: Cambridge University Press, 2013), 245–71; Huber, "Unification of the globe," 462–3; Kuhnke, *Lives at Risk*, 53–4, 107.

67 Bulmuş, *Plague*, 141–2.

68 Ibid., 145.

69 Baer, “Great Fire,” 159–81, and especially 165–71. For other earthquakes or fires in Istanbul that were not followed by major changes to the urban landscape, see Rozen and Arbel, “Great fire,” 134–65; Mazlum, *1766 İstanbul depremi*, 56–60.

70 BOA, HAT, 534/26272.

71 BOA, HAT, 386/20674/C.

72 Ambraseys, *Earthquakes in the Mediterranean*, 634–5; Stefan Knost, “The impact of the 1822 earthquake on the administration of *waqf* in Aleppo,” in Peter Sluglett and Stefan Weber, eds., *Syria and Bilad al-Sham under Ottoman Rule* (Leiden: Brill, 2010), 293–305. One rabbi reported that most people were still residing in tents and huts more than a year after the quake, as their houses lay in disrepair (‘Antebi, *Mor*, 41–2; ‘Antebi, *Yoshev ohalim*, author’s introduction).

73 BOA, HAT, 802/37098.

74 Ambraseys, *Earthquakes in the Mediterranean*, 636ff. For the 1837 quake, see 645–9.

75 Lowry, *Bursa*, 81–3.

76 A. de Moustier, “Voyage de Constantinople a Éphèse par l’intérieur de l’Asie Mineure,” *Le Tour du Monde* 1 (1864), 241–72, quotation from 243.

77 Mehmet Yıldız, “1855 Bursa depremleri,” in Gülden Sarıyıldız, ed., *Tarih boyunca Anadolu’da doğal afetler ve deprem semineri* (Istanbul: Globus Dünya Basımevi, 2001), 127–8.

78 BOA, Sadaret, Meclis-i Vala Evrakı, 70/71.

79 For more on Midhat Paşa, see Roderic Davison, “Midḥat Pasha,” *EI2*, 6:1031–5.

80 Yıldız, “Bursa depremleri,” 132–7.

81 This is attested by documents sent from Istanbul specifying Midhat’s actions in Bursa: BOA, Sadaret, Umum Vilayat Evrakı, 196/10 from 14 May 1855; and Irade Dahliye, 322/20930, from 30 June.

82 Beatrice Saint Laurent, “Ottoman power and westernization: The architecture and urban development of nineteenth and early twentieth century Bursa,” *Anatolia Moderna, Yeni Anadolu* 5 (1994), 205–6, 215–20.

83 Ayalon, “Ottoman urban privacy,” 521.

84 Yıldız, “Bursa depremleri,” 133.

85 For a more extensive list, see Aksakal, *Ottoman Road to War*, 5.

86 Hanioğlu, *A Brief History*, 167–82, 188–92; Hakan Yavuz, “The transformation of “Empire” through wars and reforms: Integration vs. oppression,” in Hakan Yavuz and Peter Sluglett, eds., *War and Diplomacy: The Russo-Turkish War of 1877–1878 and the Treaty of Berlin* (Salt Lake City: University of Utah Press, 2011), 17–55.

87 Donald Quataert, “Dilemma of development: The agricultural bank and agricultural reform in Ottoman Turkey, 1888–1908,” *IJMES* 6 (1975), 2:210–27.

88 The 1855 Bursa earthquake prompted authorities in Istanbul to introduce the first building code for homes. Its enforcement was, however, limited (Saint Laurent, “Ottoman power,” 228).

89 Fatma Ürekli, *İstanbul’da 1894 Depremi* (Istanbul: İletişim, 1995), 99–116.

90 Nesimi Yazıcı, “Ocak 1898 Balıkesir depremi oluşu ve sonrası,” in *Tarih boyunca Anadolu’da doğal afetler ve deprem semineri*, 151–96.

91 Mehmet Yavuz Erler, *Osmanlı Devleti’nde kuraklık ve kıtlık olayları (1800–1880)* (Istanbul: Libra, 2010), 32–133, and especially 89–92 and 117–33.

92 Miasma theory ruled the medical world as the key explanation for diseases such as cholera and plague until germ theory replaced it. For more on this, see Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge: Cambridge University Press, 2000), 1–4; “European sanitary reform; the British sanitary legislation,” *New York Times* 31 July 1865, 4–5.

93 Gülden Sarıyıldız, *Hicaz karantina teşkilatı (1865–1914)* (Ankara: Türk Tarih Kurumu, 1996), 13; Huber, *Channelling Mobilities*, 263–71; McNeill, *Plagues and Peoples*, 245;

94 Sarıyıldız, *Hicaz*, 14–28.

95 Ibid., 61–72.

96 Gülden Sarıyıldız, "XIX. yüzyılda Osmanlı İmparatorluğu'nda kolera salgını," in *Tarih boyunca Anadolu'da doğal afetler ve deprem semineri*, 309–19.

97 Mesut Ayar, *Osmanlı devletinde kolera: İstanbul örneği (1892–1895)* (Istanbul: Kitabevi, 2007), 43–61, 144.

98 Ibid., 295–9.

99 Hanioğlu, *A Brief History*, 138–41. A list of books published in Istanbul from 1876 to 1890 demonstrates this shift from a primary interest in religious issues to one focusing on science and literature (Server İskit, *Türkiye'de neşriyat hareketleri tarihine bir bakış* [Istanbul: Devlet basımevi, 1939], 102).

100 Ayar, *Kolera*, 246–55, 269. For quarantine during the 1892–5 epidemic, see 377–453. For the development of bacteriological research in the empire, see Ekrem Unat, *Osmanlı İmparatorluğunda bakteriyoloji ve viroloji* (Istanbul: İstanbul Üniversitesi Cerrahpaşa Tıp Fakultesi, 1970). It is easy to understand why a regime such as Abdülhamid's, in which technology and innovation was used for enhancing state control and censorship of views, considered quarantine an effective tool to be applied when needed.

101 Dan Barel, *Ruah ra'ah: Magefot ha-kholerah ve-hitpatḥut ha-refu'ah be-ereṣ yisra'el be-shilhe ha-tekufah ha-'othmanit* (Jerusalem: Mosad Bialik, 2010).

102 See, for example, Alpaslan Demir and Esat Aktaş, "Gümüşhane sancağı'nda doğal afetler (1888–1910)," *Osmanlı tarihi araştırma ve uygulama merkezi dergisi* 24 (2008), 21–49; Aydın Ayhan, "1914

yılında Balıkesir'de tifus salgını ve müdafayı – Milliye Cemiyeti'nin iki beyannamesi," *Tıp tarihi araştırmaları* 9 (1999), 221–8; Barel, *Ruah ra'ah*, 222–3.

103 Erler, *Kuraklık ve kıtlık*, 84–7, 124–5, 131–3; Hikmet Özdemir, *Salgın hastalıklardan ölümler, 1914–1918* (Ankara: Turk Tarih Kurumu Yayınları, 2005), 51–6.

104 Oya Macar, *Balkan savaşları'nda salgın hastalıklar ve sağlık hizmetleri* (Istanbul: Libra, 2012), 122–36.

105 Ibid., 136–60.

106 Özdemir, *Salgın*, 72–3.

107 Ibid., 49–73, 102–8.

108 White, *Climate*, 293–7.

109 Olive Anderson, "Great Britain and the beginnings of the Ottoman public debt, 1854–55," *The Historical Journal* 7 (1964), 1:47–63.

110 Christopher Clay, *Gold for the Sultan: Western Bankers and Ottoman Finance 1856–1881* (London: I. B. Tauris, 2001), 279 ff.

111 Özdemir, *Salgın*, 118–53; Erik Zürcher, "Between death and desertion: The experience of the Ottoman soldier in World War I," *Turcica* 28 (1996), 244–5.

Conclusion

The main drive behind the recent proliferation of studies on natural disasters, both contemporary and historical, seems to be the assumption that such events hold a key to a better understanding of human societies. Historians and social scientists have rightly believed that the discoveries made about social ties, behavioral patterns, cohesiveness of communities, and government-governed relations as seen in times of crisis teach us quite a bit about the workings of society in general.[1] This assumption has served as a starting point of this book as well. Natural disasters were recurrent events in Ottoman history from its fourteenth-century onset to its early-twentieth-century dénouement, and studying them closely enlightens us about the fabric of relationship between the state and its subjects, social relations and communal functioning, and everyday life under Ottoman government. The findings presented here reveal that religious boundaries in Ottoman society were not as significant as historians have hitherto assumed. Another important point is that natural disasters played a principal part in the rise and fall of the Ottoman Empire, one that was perhaps as important as political and military factors.

The study comprised three parts. In the first (Chapter 1), I examined the rise of the empire in the context of the Black Death in Europe and the Middle East. I explored why European and eastern Mediterranean societies, though facing a similar experience in the fourteenth century, subsequently developed in different ways. In the second part (Chapters 2 to 4), I discussed responses to disasters on the state, communal, and individual levels in the seventeenth and eighteenth centuries. The records of state-allocated resources for alleviating victim suffering and rebuilding damaged cities cast much new light on the Ottoman state's ruling philosophy and on its social priorities. The ways in which organized communities met such cataclysms, beyond highlighting their credible role as support pillars for their members in hard times, also reveal the limits of that support in moments of acute crisis, when their resources were drained. Combining historical evidence with recent findings in social psychology and adjacent fields allows a more accurate appreciation of responses by Ottoman individuals (especially urbanites) to life-threatening situations. Finally, the third part (Chapter 5) took the discussion into the last

Ottoman century and showed how the state's inability to prevent and curtail epidemics and famines contributed to its fall.

Three principal lessons seem to emerge from the exploration undertaken in this study. One concerns the role of religion in Ottoman history. Until the mid-nineteenth century, religious principles and the observance of confessional divisions were surely important factors in molding immediate and long-term responses to disasters – on the imperial, local, communal, and individual levels. Yet, religious loyalties and the upholding of Islam as the dominant faith were hardly the only concerns that informed people's actions. Objectives such as protecting privacy, promoting regal beneficence, and retaining communal authority, along with socioeconomic status and personal attachments, were at least as crucial in choosing one's course of action in a risky environment. Religion was not the sole, perhaps not even the primary, factor in disaster-related behavior. Moreover, as I have argued, it was neither the sole nor the primary social divider in Ottoman society at large. If so, one might ask, what functions did religious divisions actually fulfill in the empire? Certainly one important function of the demarcation of interreligious boundaries and the emphasis on Muslim superiority was to help rulers, imperial and local, to assert their authority. From the early days of the empire, Islamization was the primary device for introducing the new rulers to recently conquered populations and for accentuating Ottoman power in areas susceptible to man-made upheavals or natural blows. It was done primarily through the building of grand charitable foundations. As I showed in Chapter 1, the Ottomans built or converted existing structures to *'imarets* or mosques – inherently Muslim institutions – to integrate the local population into the new Ottoman cultural milieu. The conversion of the Aya Sofia church, a symbol of Byzantine power, into a mosque following the conquest of Constantinople was a measure of asserting Ottoman power in the city. And the construction of imperial mosques in conquered Arab cities in the sixteenth century was meant not to introduce the population to Islam, which was already the prevalent religion, but rather to proclaim Ottoman authority and patronage there. Similarly, as we have seen in Chapter 2, during times of political crises, such as in the mid-seventeenth century, erecting a mosque complex in an area previously inhabited by Christians and Jews and cleared by fire served to reassert the Ottoman dynasty's power.

Professing Islamic leadership, then, was a tool of upholding state supremacy more than of marginalizing other religious groups. In Chapter 2 I showed that Christians and Jews usually enjoyed the same benefits as Muslims when the state offered disaster relief. A notable

exception, the state's rebuilding of mosques but not of Christian or Jewish communal structures after an earthquake or fire, can be explained by factors unrelated to religious identity. *Dhimmi*s were allowed to rebuild their houses of worship by themselves, and in many instances founded new ones. In Istanbul, Marc Baer found that the number of Christian and Jewish houses of worship had grown manifold in the centuries following the Ottoman conquest of the city, with the pace of construction slowing down only in times when the government was disposed toward strict interpretations of Islamic law as part of an Islamization drive resulting from a particular political constellation.[2] In the capital and elsewhere, restrictions on Christians and Jews were imposed haphazardly, and sometimes not at all. European and local observers have provided ample evidence for *dhimmi* conduct that by strict Islamic principles should have been prohibited, from religious processions through drinking wine in public to riding horses.[3] All of this is, of course, a matter for another inquiry. The findings of the present study readily support such premises and show that religious identity was only one of several pillars on which Ottoman rule rested.

There are other important facets to the role played by religion in the Ottoman context, which this study has only lightly touched. In Chapter 3, I discussed the issue of community autonomy for non-Muslims. Studies on the pre-Ottoman period have shown that maintaining such autonomy was an interest shared by Muslim rulers and communal leaders, the former because they were reluctant to deal with the daily affairs of their minority subjects, the latter because they sought to preserve their standing in the community. Minority communities created mechanisms for their members to settle their affairs in ecclesiastical or rabbinical courts and discouraged them from turning to Muslim courts or involving the authorities in internal community matters. Such efforts to foster isolation in order to preserve local leadership were only partly successful, and bonds of many kinds between people of different groups were common in many places and times. Such was the case in the Ottoman period, as we have seen. Christians and Jews under Ottoman rule were indeed dependent in many matters on communal institutions (in charity collection and dispensation, the dependence was all but total); but this did not preclude extensive ties with adherents of other faiths: business partnerships, neighborly relations, and personal friendships. Still, more searching is needed before we have a more accurate notion of the status and roles of non-Muslim communities in the Ottoman Empire. Studying Christian and Jewish sources, along with the Ottoman archives, is likely to yield further essential knowledge on the various social, economic, and political networks that linked Ottomans

of different faiths. Some of these were apparently as important in defining people's identity and conduct as were their respective religious affiliations.

The second lesson one learns from this study is that changes in reaction to disasters occurring from the second half of the nineteenth century, although unable to save the empire, marked the beginning of a new era in disaster response and prevention, the latest developments of which were seen during the Republic of Turkey's handling of the recent Van earthquakes. On 23 October 2011, a 7.1-magnitude earthquake hit the city of Van in eastern Turkey. A second powerful earthquake struck the region on 9 November. The two quakes killed 644 people, injured 1,966, and left tens of thousands homeless. The Disaster and Emergency Management Presidency (Afet ve Acil Durum Yönetimi Başkanlığı – AFAD) had teams on the ground shortly after the first quake. Coordinating rescue operations in collaboration with international teams, AFAD squads managed to pull 252 individuals from under the wreckage. Within days, it set up thirteen tent cities (*çadırkentler*) to house tens of thousands of victims. In addition to lodging, the tent cities provided hot meals, showers and bathrooms, infirmaries, schools, social gathering spaces, and even psychological support services. Regardless of occasional deaths from the cold or by fire that broke out in the camps, the tent cities provided considerable relief for displaced families who had lost their homes. By early January of 2012, all thirteen tent cities were closed, and their residents – who still could not return to their homes – were moved to caravan cities (*konteynerkentler*) as a longer-term solution, until the city of Van was rebuilt. Overall, the Turkish government provided 29,486 caravans in different sites, which housed 175,070 people.[4]

The Van earthquakes were the first serious challenge AFAD had to face. Its effective response was another step in the evolution of the Turkish government's disaster response procedures. Up to the Van quakes, its efforts focused mostly on postdisaster relief activities, not on preparedness or prevention; and there were limited legal venues for different agencies to cooperate with one another. After the Izmit earthquake of 1999, in which thousands in western Anatolia and Istanbul lost their lives and many more became homeless, the public demanded better solutions. The result was the unification of several government agencies from different ministries into AFAD, an authority subordinate to the prime minister's office.[5] The establishment of this body marked the culmination of a process that had begun in the second half of nineteenth century. Then, the Ottomans moved to take more effective steps to improve responses to catastrophes such as earthquakes and epidemics: Prevention, swift reactions, and safety and

health regulations all became key elements in Ottoman, and later Republican, attempts to curb the effects of natural disasters. These changes entailed the state's invasion of private spaces, both physically and through regulations. It became permanent policy: The rebuilding and redesign of Erzincan following the March 1992 devastating earthquake, for example, was an implementation of the same design we have seen emerging in the nineteenth century.[6]

The third lesson emerging from this book is of a more general nature and concerns the promising potential of exploring ecological factors in the history of the Ottoman Empire and the Middle East. For several decades now, historians of other regions have been paying much attention to environmental history: the study of climate, disease, water, wind, wood, and soil, and their effects on human development. The works of Le Roy Ladurie, Biraben, and McNeill referenced in this book are among the cornerstones of this field. Recently edited volumes demonstrate the great strides made so far in exploring the environmental history of Europe, East Asia, and America. They also show how relatively little we know about such questions in the Middle East.[7] In the last few years, several historians have begun working toward filling this gap. The pioneering studies of Alan Mikhail and Sam White have offered unique perspectives on key events in Ottoman history, from the Celali Rebellions of the late sixteenth century to the French occupation of Egypt and the subsequent rule of Muḥammad ʻAli there, in the nineteenth. They have persuasively argued that factors such as food supply, climate changes, water, wind, timber, and human-animal interactions should all be closely considered if we are to obtain a fuller understanding of the empire's political, economic, and social history.[8] In two other studies, Ronnie Ellenblum and Sarah Kate Raphael have pointed to the correlation between extreme climate changes, famine, drought, disease, and earthquakes, on one hand, and political development, on the other, in the eastern Mediterranean basin of the tenth to twelfth centuries.[9] Yet many more questions remain to be explored in this fascinating field of environmental history; as the most recent collection of essays on the Middle East and North Africa demonstrates, we have only begun to address them.[10]

We could also take ecological questions in Ottoman and Middle Eastern contexts in other directions. As I have shown in Chapter 4, combining the environmental (disease, famine, earthquakes) with the social (behavioral outlooks) may offer insights into historical developments that are otherwise unattainable; it may even compensate somewhat for the paucity of historical sources. Turning to studies in other disciplines – sociology, social psychology, neurobiology – for scrutinizing natural phenomena has helped me

fathom people's behavior during disasters, and has thus illustrated the relevance of contemporary studies to past societies, and that of early modern history to our own society today. More recent cross-disciplinary works, incorporating mathematical models into the study of sociology and disease, offer further venues for exploration.[11] My own trial in crossing disciplinary lines was, admittedly, very modest. But even as such, it seems to have signaled that the opportunities in this approach are substantial. Disaster studies as a field holds much promise for accessing inner aspects of Ottoman and Middle Eastern history for which we have inadequate evidence in sources of the more traditional kind. Future studies of this sort are likely to produce more instructive findings and perceptions.

1 I have provided examples for the relevance of disaster-related actions to the understanding of society in general throughout the book. For a partial list of relevant publications, see the Introduction, n. 2.

2 Baer, "Great fire," 165.

3 For example, see Russell, *Aleppo, 1756*, 19; Russell, *Aleppo, 1794*, 1:222–3, 2:41–2; Burayk, *Ta'rikh*, 47, 73–6, 83–4; Tawtal, *Watha'iq*, 1:15; Teixeira, *Travels*, 70. See also Rozen, *Istanbul*, 18–34.

4 For the Turkish government official report on the Van earthquake, see "Afet raporu: Van depremi," http://www.afad.gov.tr/TR/IcerikListele1.aspx?ID=107, accessed 3 August 2014.

5 "AFAD başkanı Dr. Fuat Oktay," *AFAD Dergisi* (2012), 1:15–18, http://www.afad.gov.tr/Dokuman/TR/32-2012112010041-afad_19.11.2012_.pdf, accessed 3 August 2014.

6 Ersal Yavı and Necla Yavı, *Deprem sonrasi Erzincan: 13 Mart 1992 depreminden 1995 yılı sonuna kadar gerçeklestirilen iyileştirme ve yeniden*

yapılandırma faaliyetleri (Ankara: Erzincan İli Merkez İlçe Köylere Hizmet Götürme Birliği, 1996).

7 Edmund Burke and Kenneth Pomeranz, eds., *The Environment and World History* (Berkeley: University of California Press, 2009); J. R. McNeill and Erin Mauldin, eds., *A Companion to Global Environmental History* (Chichester, UK: Wiley-Blackwell, 2012).

8 I have cited Mikhail and White's works extensively throughout this book. For human-animal interactions, see Alan Mikhail, *The Animal in Ottoman Egypt* (New York: Oxford University Press, 2014).

9 Ronnie Ellenblum, *The Collapse of the Eastern Mediterranean: Climate Change and the Decline of the East, 950–1072* (Cambridge: Cambridge University Press, 2012); Sarah Kate Raphael, *Climate and Political Climate: Environmental Disasters in the Medieval Levant* (Leiden: Brill, 2013).

10 Alan Mikhail, ed., *Water on Sand: Environmental Histories of the Middle East and North Africa* (New York: Oxford University Press, 2013).

11 Phillip Bonacich and Philip Lu, *Introduction to Mathematical Sociology* (Princeton, NJ: Princeton University Press, 2012); O. Diekmann et al., *Mathematical Tools for Understanding Infectious Diseases Dynamics* (Princeton, NJ: Princeton University Press, 2013).

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